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DETROIT

Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

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RATE OF PRODUCTION DECLINE CUT

Retail Sale of New Cars In First Eight Months Holds Up Best in East

Decline in This Territory and New England From Last Year Only 20% and 24% Respectively; Middle West Hit Hardest

NEW YORK, Oct. 9.—Retail sales of new passenger cars in the first eight months of this year in the six Eastern states of New York, New Jersey, Pennsylvania, Maryland, West Virginia and Delaware showed the smallest decline from a year ago of any similar geographical division of the country.

The complete registration statistics reveal that the sales in those five states amounted to 513,221, as against 642,000 in the corresponding period of last year, a falling off of 20 per cent.

The neighboring New England states showed the next smallest drop with a decline of 24 per cent., while on the Pacific Coast sales of new cars were off 25 per cent.

The sections of the country be-

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CANADIAN MOTOR TRADE OFF SHARPLY

Special from A. D. N. Washington Bureau

Washington, Oct. 9.—Although production, imports and sales showed advances over the first quarter of 1930, but declined noticeably from the corresponding period of a year ago, the Canadian automotive trade was considered unsatisfactory during the second quarter of this year, William P. Sargeant, Jr., United States assistant trade commissioner at Ottawa, today reported to the Department of Commerce.

Exports were less than those of the first quarter of this year as well as the second quarter of last year, he pointed out.

May was the most active month during the second quarter as measured by production, imports and sales, while June exports were larger than either of the preceding months.

Mr. Sargeant said that a total of 22,583 new cars were financed during the second quarter of this year, as compared with 7,145 during the preceding three-month period, but with 31,841 during the second three months of 1929.

About twice as many used cars were financed in the second as compared with the first quarter. The grand total was 51,062, as compared with 50,900 for the first quarter, but 24 per cent. less than the figure

(Continued on Page 12)

NASH SAYS OUTLOOK NEVER WAS BRIGHTER; SEES UPTURN NEAR

Kenosha, Wis., Oct. 9.—"The future of the Nash Motors Company never looked brighter than at the present time," said C. W. Nash, president, in commenting today on the introduction of the new Nash models for 1931.

"I look upon these new cars as the correct answer to the question of how to build back high, stable and lasting American prosperity

"They are based upon a sound policy which retains the highest standards at reduced costs; makes it possible for more people to buy; more people to be employed, more production gained and a real and lasting structure of prosperity erected.

"Our days of speculation are over and well over in my opinion, but with a plentiful supply of money in banks in all sections of the country and with crops and national resources in fair condition there is no reason why we cannot produce a high level of prosperity this time on a solid and sound foundation of honest values rather than speculative values."

SEPTEMBER OUTPUT CLOSE TO AUGUST TOTAL; N. A. C. C. ESTIMATE SAYS 226,361

Drop From Last Year 42% as Compared With 54% In August; Seasonal Falling Off Only 2.6%

WASHINGTON, Oct. 9.—Production of motor vehicles in the United States and Canada in September amounted to 226,361, a seasonal decline from the 232,838 total of August of only 2.6 per cent., according to the regular monthly estimate of the National Automobile Chamber of Commerce, issued here today at the monthly meeting of the Chamber's board of directors. This meeting was held in Washington this month because of the presence in this city of automotive leaders at the international highway congress.

This seasonal falling off of 2.6 per cent. from the preceding month compares with a normal decline in September of around 10 per cent. The showing of September in respect to the seasonal trend was the best of any month thus far this year. The August decline from July was 14 per cent.

The estimated September total compared with 429,729 in the corresponding month of last year, a drop of 42 per cent. This decline compared with a falling off in August of 54 per cent. from the 1929 level. This may mark the turn in the automotive production trend, as it is the first time that the rate of decline in output from last year has been reduced. As the falling off in production in the last quarter of 1929 was nothing less than startling there is every possibility that the last quarter of this year will make a better showing in comparison with 1929 than the preceding quarters. It will be recalled that the production in December, 1929, was the smallest for any corresponding month since 1921.

The N. A. C. C. estimate, usually too low rather than otherwise, indicates that September production

(Continued on Page 2)

REAL RECOVERY SEEN IN STEEL INDUSTRY BY GIRDLER OF REPUBLIC

Youngstown, O., Oct. 9.—Confidence that there will be no wage slashing in the steel industry, and that the trade is beginning to experience the first flutter of a complete revival, was expressed by Tom L. Girdler, chairman of the Republic Steel Corporation.

The most convincing evidence that the bottom has been reached, Girdler said, was in the attitude of customers.

"For the first time in many months," he said, "buyers are showing an increasing interest in making purchases for future delivery, indicating growing confidence in the underlying firmness of prices.

"The level of steel prices has fallen 12 per cent. in the last year to the lowest point since 1915. The prices of many steel products have dropped to the point where many large customers, especially the automobile manufacturers, realize any further declines would serve no special purpose."

ANNUAL S. A. E. PRODUCTION SESSIONS END WITH BANQUET

DETROIT, Oct. 9.—The ninth annual production meeting of the Society of Automotive Engineers, which wound up last night with a banquet which completely filled the grand ball room of the Book Cadillac, is declared to have been one of the most successful meetings of the big organization.

Intense interest was shown in each of the six papers read at the three sessions and the discussions that followed the reading of each testified to the importance of what was going on.

One session was devoted to aluminum and its alloys, methods of machining, and the use of tungsten carbide as an aid to production, especially for the machining of the soft metals, such as aluminum, cast iron, bronzes and babbitt. Another was given over to a study of time element in production and problems of engineering economics, showing how mathematics and pure theory may be utilized in a practical way to shape the judgment of production management.

Yesterday morning was given over to the reading of papers, yesterday afternoon being used to visit the Plymouth plant and the Chevrolet forge plant. Two papers were read and digested yesterday morning. "Conveyors in the Automotive In-

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Sharp Gains in Truck Taxes Seen as Menace

DETROIT, Oct. 9.—**The current uptrend of truck taxation is a subject meriting the serious consideration not only of those actively engaged in the commercial vehicle industry, but equally of the vast public whom highway transport serves, according to M. L. Pulcher, president of the Federal Motor Truck Company.**

"The benefits of commercial haulage are far-reaching and they touch every one," says Mr. Pulcher. "By means of the motor truck, merchandise moves in a direct line from manufacturer to user. Farm produce is transported with speed and dispatch to the city. In that exchange of world commodities so necessary to human existence the motor truck saves untold millions of dollars in time, labor and actual hauling cost. Facilitating distribution and maintaining low living costs, it performs a service of incalculable value to industry in all forms and to the ultimate consumer. Without the motor truck, living costs today would be prohibitive—living conditions intolerable. Taxes that impede distribution undermine the very foundation of progress and prosperity.

"No objection has ever been voiced to the motor truck paying its just share of taxes, but can any thinking person conscientiously

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Highway Congress Hears Of Road Building Plans

Special from A. D. N. Washington Bureau

WASHINGTON, Oct. 9.—The Sixth International Road Congress, considered the greatest assemblage of its kind ever held, was nearing a close today, with the formal adjournment scheduled for Friday night.

Sectional meetings were held this morning and early this afternoon, being followed late this afternoon with a reception at the White House by President and Mrs. Hoover.

Tonight the delegates were to be entertained at a brilliant dinner by the American Organizing Commission at the Hotel Willard.

Grover C. Dillman, state highway commissioner of Michigan, presided over a session of the section on construction and maintenance this morning.

This afternoon, at a meeting of the section on traffic and administration, Jay Downer, chief engineer of the Westchester County Park Commission of New York State, was the presiding officer.

An appeal to the delegates to build highways with an eye to future traffic needs, as well as the asthetic side of road building, was made by Thomas P. Henry, president of the American Automobile Association.

Mr. Henry spoke at a luncheon tendered by the A. A. A. The response was made by Edmond Chaix, president of the Touring Club of France.

Mr. Henry spoke of the tourists of all lands as couriers of peace and

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S. A. E. BANQUET ENDS MEETING

(Continued from Page 1)

dustry" was handled by J. H. Hough of the Mathews Conveyor Company.

The engineers listened to the story of how conveyors have made possible the maintenance of a small inventory and removed the necessity of making a charge of storage rental on factory space. Furthermore, it was pointed out, conveyors have made possible progressive mass production, bringing the work to the men and taking it away after the operations are performed.

Mr. Hough diverted from his paper to mention a scheme for using roller conveyors in connection with cranes. Cranes, he said, can be used to fill a line of roller conveyors, giving continuous flow on the roller conveyors from an intermittent feeding. Mr. McBride of the Palmer-Bee Company told of the use of two strands of overhead chain ten or eleven feet apart used for enameling conveyors, the advantage being that it prevents dirt from falling from the track on to the enameled parts, which has caused many rejections in single track conveyors.

J. D. Blake of the J. B. Webb Company pointed out the saving in floor space through the use of conveyors, while W. B. Casgrain, talking of different types of pusher conveyors, said they could be used for the assembly line instead of drag chains. A side pushing chain has the advantage of making it possible to put on or take off cars at any point in the line.

The other paper was "Wear Allowances and Tolerances on Gages," by E. J. Bryant of the Greenfield Tap and Die Company. The chief spokesman in the discussion was Orrel Parker of the Parker Wheel Company, who said some improvements are required in gaging distorted surfaces. A bore on a hub may be out of round. The small diameter of it may be below the minimum limit and at the same time the large diameter over the maximum, so it is almost impossible to gage it in such a way as to tell if the size is right. But when the bearing is pressed into place it brings the hub into shape.

Waiting for the banquet in the evening, John V. A. Warner, secretary and general manager of the S. A. E., declared that in his opinion the automobile industry shows signs of an awakening. He thinks there is the seed of prosperity in present conditions, because the past six months has compelled the reduction of inventory in plants, more careful study of distribution among dealers and more clean cut thinking on the part of the executives. The net result of all this is that the purchaser's dollar will buy more motor car and more miles of satisfying transportation than ever before.

"Although we have witnessed during the past decade the introduction of some twenty-five outstanding machine tools, many of which are automatic and semi-automatic in character, the end is not yet," said Mr. Warner. "Production men and tool designers are alert to changing conditions and we may expect equally important advances in shop practice as a result of this temporary adjustment period.

"The S. A. E. necessarily takes unto itself the study of such problems and it is very apparent from the papers that have been presented at our recent meetings that if engineers are alert to the needs of the industry the automotive engineer must head the procession back to normalcy."

HEXCEL

Correct in design. Flawless in workmanship. Satisfactory in service. Deliveries on schedule.

HEXCEL RADIATOR CO. MILWAUKEE, WIS.

RADIATORS

COMPARATIVE AUTOMOBILE PRODUCTION BY MONTHS OVER FOUR-YEAR PERIOD

	1930	1929	1928	1927
January	285,762	422,538	240,191	254,284
February	362,488	497,705	336,300	323,390
March	422,043	626,076	430,783	417,763
1st quarter	1,070,293	1,546,319	1,007,274	995,437
April	467,295	663,811	434,315	430,993
May	442,078	636,250	459,725	431,356
June	350,567	567,424	425,195	343,025
2d quarter	1,259,940	1,867,485	1,319,235	1,205,374
Six months	2,330,233	3,413,804	2,326,509	2,200,811
July	272,551	518,301	417,312	280,383
August	232,838	512,842	492,543	322,520
September	*226,361	429,729	436,507	271,572
3d quarter	731,750	1,460,872	1,346,362	874,475
Nine months	3,061,983	4,874,676	3,672,871	3,075,286

*N. A. C. C. estimate.

HIGHWAY CONGRESS ENDS SESSION TODAY

(Continued from Page 1)

good will and declared that motor transportation, the basis of which is highways, is bringing the people of all nations a wider distribution of prosperity, a broader life and better understanding. He said, in part:—

"In building 500,000 miles of improved highways, we have made mistakes. In many instances, we built piecemeal instead of building on a co-ordinated and unified plan. This, you can avoid by building with a view not to the requirements of today, but to the requirements of the years to come."

Highway construction in the United States, the delegates were told, is progressing at the rate of approximately 33,000 miles per year, including Federal and state programs. The total cost last year, expended by the forty-eight states, amounted to $1,194,775,000. This sum was in addition to the Federal aid expenditures.

The road mileage in the world today, according to data submitted, is 7,800,000 miles, of which approximately half is in North, South and Central America. The European countries rank second with a total of 2,500,000 miles. The bulk of the world's mileage is divided primarily among five countries, viz: United States, 3,016,000 miles; France, 440,000 miles; Russia, 420,000 miles; Canada, 425,000 miles, and Australia, 360,000 miles.

There are 7.8 automobiles for each mile of highway in the United States, but one automobile for every fifty-five persons in the world, the ratio in the United States being one for each 4.5 inhabitants, compared with a ratio of one automobile for each 216 persons outside of the United States.

Emphasizing the need of closer coordination of highway transportation with that offered by railroads, the third day's work of the congress began yesterday.

Prof. Henry R. Trumbower of Wisconsin University, led the discussion in the section considering the co-ordination of transportation methods, while Roy W. Crum, director of the highway research board of the National Research Council of Washington, led the technical discussion.

The former meeting was presided over by A. J. Brosseau, president of Mack Truck, Inc., and vice-president of the Chamber of Commerce of the United States, and the latter by Fred R. White, chief engineer of the Iowa State Highway Commission.

WANTED—

Manager for Body Manufacturing Company, with sales, manufacturing, engineering, designing and layout experience. Address Box 269, Automotive Daily News, Graybar Building, New York City, giving former connections, age, experience, salary and references.

SEPTEMBER OUTPUT PLACED AT 226,361

(Continued from Page 1)

held to a higher level than was expected, and also was an indication that both factory and dealer stocks are in excellent shape. In view of the manufacturers' 1930 policy of keeping production absolutely in line with the retail demand, it is apparent that they would not have continued to produce in September at the August level had there not been justification in the retail demand.

Production of motor vehicles in this country and Canada in the first nine months of this year passed the 3,000,000 mark, totaling 3,961,983, as compared with 4,874,676 in the corresponding period of last year, a decline of 37 per cent. This compared with a falling off of 36 per cent. in the first eight months.

The nine months' total compares wih 3,672,871 in the corresponding period of 1928, a decline of 16 per cent.

For the third quarter of the current year the output was 731,750 as against 1,460,872 a year ago, off 49.9 per cent. It will be seen, therefore, that the rate of decline in September was cut sharply in view of the fact that the decline in the preceding two months was sufficient to make the falling off for the quarter nearly 50 per cent.

CRUDE OIL PRODUCTION OFF; IMPORTS INCREASE

New York, Oct. 9.—The American Petroleum Institute estimates that the daily average gross crude oil production in the United States, for the week ended October 4, 1930, was 2,386,950 barrels, as compared with 2,389,750 barrels for the preceding week, a decrease of 2,800 barrels. The daily average production east of California was 1,800,750 barrels, as compared with 1,795,450 barrels, an increase of 5,300 barrels.

According to figures collected by the American Petroleum Institute, imports of petroleum (crude and refined oils) at the principal ports for the month of September, totaled 8,426,000 barrels, a daily average of 280,867 barrels, compared with 8,583,000 barrels, a daily average of 276,871 barrels for the month of August.

Imports at the principal United States ports for the week ended October 4 totaled 1,164,000 barrels, a daily average of 166,286 barrels, compared with 2,533,000 barrels, a daily average of 319,571 barrels for the week ended September 27.

GOODYEAR CO. OPENS NEW BRANCH AT JACKSONVILLE

Jacksonville, Fla., Oct. 9.—A new wholesale branch of the Goodyear Tire and Rubber Company, Inc., at the northeast corner Myrtle Avenue and Houston Street, Herbert F. McClure manager, has just opened.

Automobile and truck tires, belting, rubber flooring and packing will be shown in the two-story structure, 90 x 105 feet.

SPARKS from DETROIT

* * *

Sunday Closing Gains

* * *

Chapin on Highways

* * *

Stop "Stop" Signs

* * *

Chris Sinsabaugh—Detroit Editor

DETROIT may be wide open in some respects, but when it comes to keeping open for Sunday business it is almost as tight as the proverbial drum. Selling cars at retail on the Sabbath is taboo here because of the energetic campaign which has been successfully carried on by the Detroit Automobile Dealers' Association. The door is not quite shut, though, and the association is taking steps now to win over some sixty or sixty-five used car dealers who have not followed the example set by the big majority.

It was under the leadership of James Dickson, Jr., Buick branch manager and president of the association at the time, that this vigorous organization took concerted action last summer and brought about Sunday closing, beginning Sunday, July 6. By means of radio talks, pledges and other ways the dealers of Wayne County were made to see the futility of opening Sundays for the few crumbs they picked up. As a result 843 dealers in Wayne County agreed to the proposition and they have lived up to this agreement ever since. Of late, though, a few used car merchants have broken loose and now the association is trying to herd them into the fold.

This move for Sunday closing is spreading slowly, but Detroiters claim it ought to be universal, for they have noted in the few months they have been closing Sundays that they have not lost any business, and besides the salesmen show the benefit of the rest over the Sabbath.

In addition to Detroit, Toledo, Kansas City and Omaha are the only big Western cities which open only six days a week. Chicago, Cleveland, Indianapolis and Milwaukee are among the big municipalities which run seven days.

* * *

DETROITERS who listened in on WMAS last Saturday night enjoyed the radio address of their fellow townsman, Roy D. Chapin, chairman of the Hudson board and also president of the American Organizing Commission, appointed by President Hoover to arrange for the holding of the sixth international road congress, now in progress in Washington.

Of course, his remarks had to do with the road congress, but Detroiters admired his epigramatic sentences, and digested considerable of the highway facts handed out by Mr. Chapin.

* * *

DRAWING a picture of the past and present, Mr. Chapin brought out that twenty-five years ago there were fewer than 25,000 automobiles; now there are more than 26,000,000; then there were only 155,000 miles of improved roads in the United States, of which only 144 miles had a high type surface; today there are more than 600,000 miles of improved highway and another half million miles of usable dirt roads.

In place of the $100,000,000 a year we used to spend on highway improvement, there is more than $1,500,000 being spent annually now.

The closing of the speech was typically Roy Chapin. Said he: "In this conference we may speak a variety of tongues, but we have a great universal language—the language of the road. Our problems are mutual. We are concerned with no special advantages, but with the common good which springs from improved transportation. Our sole objective is the creation of highways of friendship within and between all nations."

Sentiments that should become highway classics.

* * *

"STOP" signs cannot be used for advertising purposes, according to Detroit's corporation counsel's office—it is illegal. The city council asked for the opinion and it is expected that some action may be taken this week with the idea of eliminating such advertising. Or it may be the council will amend the ordinance and permit the continuance of this advertising.

An adverse decision might have its drawbacks. Of course, this particular case only applies to Detroit, but if this city's example was followed elsewhere it might slow efforts to simplify traffic control. In many of the smaller towns the erection of traffic signals carrying advertising matter by clubs and others interested in helping, is permitted, the villages being glad of these contributions. And it all helps straighten out the tangle of traffic.

How Farm Products Display Boosted Accessory Sales

COLORADO FIRM GOT BRIGHT IDEA; PUT IT TO WORK

Novel Window Trimming Scheme Cost Very Little

By IRA R. ALEXANDER

"YOU'VE got to go some to beat that watermelon and those ears of corn," remarked a farmer-customer in the Elder Motor Company's garage in Las Animas, Col., the other day as he displayed the products he had in his car when he drove in for some minor repairs. Right there the proporietor of the motor firm got an idea and he straightway put it to work.

A window display of automobile accessories was just being arranged at the garage and the watermelon and several ears of corn were placed in the window along with the accessory items. A neat card was painted advising that the watermelon and corn were grown by the certain farmer. This card also called attention to the fact that the farm products displayed were of prize-winning variety.

It was not long until other farmers noted the display. It drew their attention right off the bat and considerable comment floated around. The motor company, of course, came in for a lot of mention and the happy inspiration of the owner resulted in his firm's getting a lot of good advertising. It did not end there, either.

Other farmers began arriving at the motor company's place of business, and, what is more, each one brought in something in the way of farm products to show what they were doing in the art of agriculture. It was not long until Mr. Elder had a window display of farm products—in all fifty farmers contributed to the display. Mr. Elder pinned the names of each contributor on the farm products supplied by each farmer. This all helped to draw close notice to the window.

Automobile accessories were also displayed, and farmers and people of the town, stopping to examine the farm products, also had a chance to see what the motor firm is offering for sale in the way of accessories. Many of them went inside and made purchases, boosting the business of the firm, as a result.

This plan of trimming a display window of a motor firm can be carried out by any man engaged in the same kind of business in any smaller town of the country. What is more, it will give that automobile man a good list of prospects. Farmers coming into the place of business will want to talk, and during the conversation, the matter of automobiles and all things automotive can be discussed. The proprietor of the business, if he be alive to his opportunity, can learn many things during the conversation that can be of help to him in his business.

Such a window can be arranged with very little expense and it will cause the company to be talked about, and, as a result, much good publicity will be received.

BREAKING ALL RECORDS
CROWDS! CROWDS! CROWDS!
ARE COMING DAILY TO—
Newark's Greatest Used Car Sale!
THAT'S ALL $29.29 NO MORE TO PAY
DON'T MISS IT!
We Thank You!
W. G. Toland
Pres. Nash-Newark, Inc.
HERE'S A FEW OF THE MANY BARGAINS!!
$48.48 "NOT A CENT MORE TO PAY"
Many Makes Closed Cars In This Group!
"MARMON" Chauffeur Driven Sedan, worth $500, cut to $195
"CHRYSLER" 4-Pass. Coupe. Worth $650. Watch it go for $425
$79.79 "AND YOU SAY NO TO PAY"
Dodges, Nash, Chevs, Fords, etc. Worth to $200
"STUDEBAKER" 1929 President Sedan. LIKE NEW. A real buy at $995
"NASH" 4-door Sedan. $650 worth of car for $295
"HUPMOBILE" 4-Pass. Coupe. Worth $650. A "pick-up" for $395
"BUICK" Standard "6" Sedan. Worth $650. Try to beat $395
"NASH" Sport De Luxe Roadster. $750 in cheap—take it for $495
"BUICK" Master Brougham—LIKE NEW—$900 value for $745
EVERY USED CAR MUST GO!
—It's All Because WE NEED THE ROOM!
YOUR OLD CAR IN TRADE AND A YEAR TO PAY!
NASH-NEWARK, Inc.
"NASH DEALERS"
Tel. Market 2-2303
Open Nights to 10

Breaking all records in used car sales, the Nash-Newark, Inc., of Newark, N. J., of which William J. Toland is president, took occasion to express its appreciation of the huge response of the buying public. This "thank you" ad was also the occasion of impressing the fact that there were many more bargains ranging from $29.29, the special, to $745. Other cars were priced at $79.79, etc.

JEFFREY, INC., COMPLETES NEW FORD SALESROOMS

Oil City, Pa., Oct. 9.—The firm of W. W. Jeffrey, Inc., Ford-Lincoln dealership, has completed and is now occupying its new salesroom and service station in Seneca Street, in the heart of the business section. The new salesroom is modern in every respect and is equipped throughout with the latest type of indirect lighting facilities, while the repair shop contains many of the latest improvements in machinery and equipment, as well as a complete super service station. A feature of the new plant is the handsomely finished used car salesroom.

MOONEY SAYS RUSSIAN GOVERNMENT IS STABLE

Paris, Oct. 9.—"The Russian government is as stable today as any other government," is the opinion expressed by J. D. Mooney, president of General Motors Export Company, in a speech before the American Automobile Club here. Mr. Mooney, who is in Paris for the automobile show, arrived in that city from Moscow a few days ago.

"Russia is in urgent need of worldly goods, including automobiles, and possesses both the ability and disposition to pay. Russia's economic program is accomplishing its objective and its ultimate success will prove beneficial and not detrimental to the rest of the world, including America, through the increased volume of world business which will be the inevitable result of her participation in international commerce."

HENRY FORD IN ENGLAND ADVOCATES FREE TRADE FOR THE ENTIRE WORLD

London, Oct. 9.—Talking to newspaper men here today, Henry Ford came out in favor of the abolition of tariffs by every country in the world.

"It would do England good to abolish tariffs because that would bring needed industries to the country," he said.

"By the end of two years we don't expect one penny's worth of Ford products will be imported from the United States. You will be making everything for yourselves."

SOUTHWESTERN SHOW TO INCLUDE NEW FEATURES

Dallas, Tex., Oct. 9.—New features to be included in the Southwestern Automobile Show to be held in connection with the State Fair of Texas, October 11 to 26, are the showings of passenger cars, commercial cars and trucks, parked in order of the price range, from the lowest to the highest. Further innovations include radios, both for home and automo-automotive equipment displays; airplane displays; and parades of cars before the scheduled football games each night.

WEST TENNESSEE MOTOR COMPANY CHANGES HANDS

Nashville, Tenn., Oct. 9 (UTPS).—The West Tennessee Motor Company, Paris, Tenn., has been organized by Will T. Warren, Jr., A. F. Stanton, W. S. Duvall and J. M. Ing, and taken over the holdings of the Jones Motor Company. The new concern will handle Fords and Lincolns, and will be in charge of A. F. Stanton, manager.

CHEVROLET, FISHER BODY EMPLOYEES BENEFIT FROM JANESVILLE SAVING PLAN

Milwaukee, Wis., Oct. 9.—According to J. H. H. Alexander of the Wisconsin Manufacturers' Association, increased savings of from three to nine times are being experienced by employees of the Chevrolet and Fisher Body Company divisions of General Motors at Janesville, Wis., under the employees' saving plan.

Employees voluntarily join the savings classes, being eligible after three months' employment. Then, from January 1 to December 31, the employee authorizes the company to deduct $5 to $25 from his salary for the saving fund. The employee may either start a new class next year or leave his accumulated savings in for five years.

Withdrawals may be made, if necessary, from the fund, in five years, but this is discouraged, because only money left for the five years is eligible to participate in profits of the investment fund. It is estimated that an employee able to save $300 a year for fifteen years, totaling $4,500, would actually have, under the employee plan, $40,000 at the end of the time. This would yield him an income of $200 a month.

The industrial depression has not reduced savings at the Janesville plant, but has increased them. The average saving rate per employee in the first five months of 1930 was $15, compared to only $10 in 1929.

The whole saving plan is based on payment of a wage large enough to allow at least $5 a month to be saved, as the company points out. Although there have been lay-offs in the winter months, and there is still some enforced idleness, it is claimed most workers are staying in Janesville, borrowing from savings, instead of driving away.

FOLEY HOST TO FRIENDS AT GOLF TOURNAMENT

Newark, N. J., Oct. 9.—E. J. Foley, president of the Foley Chevrolet Company and president of the Newark Auto Trade Association, was host to a number of friends at the North Jersey Auto Trade Association golf tournament at Forest Hill Golf Club recently.

Those in the party included R. P. Letts, zone manager; Dorsey Thomas, assistant sales manager of the Foley organization; James McCoughney, president of the Brooklyn Auto Trade Association; Ralph Ebbett, secretary of the Brooklyn Association; Walter Van Winkle, service manager of the Foley Chevrolet Company, and Fred Lindey, Montclair Chevrolet dealer.

DURANT MOTORS ADD NEW SIX PRICED $705

Lansing, Mich., Oct. 9.—Durant Motors today announced plans for manufacture of a six cylinder motor car selling at $705.

Price on the new six-cylinder four-door sedan, announced today by Harry J. Shorter, general sales manager, is $725. The coupe sells for $705, and the coach for $710. Engine bore and piston displacement the same as Durant 6-14. Body and chassis on the new six are the same as those on the Durant four.

DEALER GIVES AIRPLANE RIDE WITH EACH SALE

Lincoln, Neb., Oct. 9.—The Hendy & Ogier Auto Company, Ford dealer at North Platte, Neb., has secured the services of a Ford tri-motor plane, in which a free ride will be given to every one purchasing a new or used car on three days of next week.

JOHN B. COLEY ELECTED

St. Paul, Minn., Oct. 9 (UTPS).—W. J. Motor Company, Ford dealer, 1800 University Ave., decided to enlarge its executive staff by election of John B. Foley as vice-president. Foley has been sales manager three years. He has been ten years in the automobile business here.

BROADCLOTH POPULAR AT PARIS SALON

Paris, Oct. 9.—A survey of the upholstery materials shown on the cars at the Automobile Salon, which has just opened here, discloses the continued popularity of plain broadcloth, especially for the more expensive cars, according to P. H. Chase, Duco Information Service. Apart from the classical fawn shades, this material at the present salon is also found in the most brilliant shades. Next in importance in upholstery comes the fancy cloth materials, showing small patterns in various shades. Geometrical designs are not so prevalent this year. Several cars are on display showing brown designs which give a tweed effect.

Pile materials show a decided advance over last year, due to the fact that last year this class of material was shown mostly on imported cars, while this year it is used generally on French cars. Bedford materials show a distinct falling off.

Percentages of cloth materials, not including rayon, shown as upholstery are approximately as follows: Plain cloth, 52 per cent.; fancy cloth, 30 per cent.; pile materials, 13 per cent.; Bedford, 5 per cent. Leather and lacquered fabrics represent about 19 per cent. of the total. In these latter materials there are several examples showing reptile grain. An interesting feature was the increase in cars upholstered in rayon or a combination of rayon and other materials as compared to the use of this material last year.

AUSTIN BACKS FORD ON TAXATION STAND

London, Oct. 9.—Sir Herbert Austin, the profits of whose company show that he is one of the most successful British motor manufacturers, in the course of his presidential address before the Institution of Automobile Engineers this week, supported Henry Ford in saying that the British system of taxation on the basis of engine capacity had been holding back progress here.

G. L. WHITE WILL HEAD NEW JORDAN CORPORATION

Cleveland, Oct. 9.—G. L. White will be president of the new Jordan Motors Corporation and C. Stirling Smith will be secretary and treasurer if the stockholders of the present company approve the plan of reorganization being submitted to them by the directors, it was announced here today. The plan of reorganization has appeared in previous issues of Automotive Daily News.

GENERAL MOTORS BUYING MANY RAW MATERIALS NOW

New York, Oct. 9.—General Motors is buying raw materials for its needs nine months in advance, according to an interview with A. P. Sloan, Jr., president, by a representative of the New York American. General Motors is one of the biggest buyers of raw materials in the world and this action by the corporation is expected to have a steadying effect on the commodity markets.

SPOHN MOTOR CO. TO SELL FORDS AT SHARPSBURG, PA.

Sharpsburg, Pa., Oct. 9.—The Spohn Motor Company has been formed as Ford sales and service company, and has leased the new Collins Building at 815 and 817 Main St. here, for a long term of years. The company is composed of C. H. Spohn, with many years experience spent with the Dormont Chevrolet Company and B. F. Stout of Pittsburgh. With Mr. Spohn in the company is E. A. Bittner, the well known contractor. They will have an experienced and capable force of mechanics. The service department will be in charge of Mr. Sherman, formerly of the Sherman Motor Company.

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The Great Sales Obstacle

SOME days ago we had the pleasure of talking to an automobile dealer who has done an outstanding job in a territory that did not look very promising for the line he is handling when he took it over five years ago. We asked him what he considered the greatest obstacle he had been forced to overcome. We fully expected him to say "used cars," but to our surprise his answer was the single word: "Salesmen."

Then he explained: "During the five years I have been here I have had about sixty salesmen in my employ. The six I have now are the result of a sort of process of elimination. They are the boys who have measured up to what I think a salesman should be, and whatever success I have had is due to them. Oh, yes, perhaps I did help train them, but if the stuff hadn't been there I could have trained until I was blue in the face and they would just have passed on with the rest."

"What do you consider the fundamental quality that a salesman in the automotive business must have to be successful?" we asked.

"Enthusiasm, first of all," answered the dealer. "Unless a man actually thinks selling automobiles is a swell job, he isn't going to get very far. I have always thought that a man had to get some fun out of his job or he would do it in a half-hearted way. Personally, I've always got a kick out of pitting my wits against competing salesmen, and unless a man has that sort of a temperament he isn't going to make much of a salesman. I know, and I guess every other dealer knows, lots of salesmen who have swell mechanical equipment, good talkers, pleasant personalities, knowing their stuff, but they just lack something to make them topnotchers. I've always thought it was that little element of enthusiasm for the job.

"Give me a man who likes to sell automobiles and really is willing to work, and I'll make a good salesman out of him, if I do say it myself.

"You can guess that the second quality I would demand in a candidate for a selling job with me is willingness to work. The law of averages holds strictly in selling. The man who makes the most contacts sells the most of anything, from automobiles to nursing bottles. Give me the boy who runs into a streak of good luck and sells more than his month's quota in a week, but shows up Monday morning at 8.30 and plugs just as hard as if he had had a bad week and I'll show you a salesman. Many a good salesman goes bad because he can't stand prosperity. Another thing: the man who likes work will have his prospect files, his preparation work, as I call it, ready for use at all times. He won't skimp and try to coast through on luck.

"After enthusiasm and will to work, I think I would put knowledge of the product. In our business a salesman has got to know his own line and what it will do, and he has got to know competitive lines. The latter knowledge is for defense, not attack. If I ever found one of my men knocking a rival line, I would let him go instantly, because I'd know he never would be a good salesman. Emphasize the good points of your own product, but never knock what you think are the bad ones of a rival line, ought to be the basic rule with all salesmen."

"Then salesmen are made, not born?" we hazarded.

"Absolutely," answered our friend. "I'm not saying that what we might call the super-salesmen, the real topnotchers i nany line of business, aren't born with equipment that almost makes them salesmen automatically. These top sergeants of selling have all the various qualities a salesman needs in supreme degree. On the other hand, I've seen many and many a man become a successful salesman who didn't have all the natural equipment, while some other fellow, who had almost everything, failed because he lacked enthusiasm or didn't like to work. There is plenty of room in the automobile business for salesmen who have been made or have made themselves. I've got six of them now and, as I told you, they were selected out of sixty or more that tried out during five years. And those six have managed to turn in 18 per cent. more business this lean year than they did during the 1929 boom. The automobile business could stand six or sixty thousand more like them, if you ask me."

We agree.

WARN INDUSTRY TO STEM TAX WASTE: SEE TRADE GAIN

New York, Oct. 9.—Public expenditures, unless checked, soon will consume one-fifth of the national income, according to a warning sounded at the annual meeting of the National Association of Manufacturers at the Hotel Roosevelt this week by James A. Emery, general counsel of the association. He asserted that business men must assert their rght to study and analyze the nature and effect of legslaton on industrial operations. John E. Edgerton, presdent of the Lebanon (Tenn.) Woolen Mills, was re-elected president of the association for the tenth consecutive term.

"Fifteen years ago one-fourteenth of the national income was devoted to the purposes of government," said Mr. Emery. "Today approximately one-seventh of our national income is devoted to public expenditure. It reaches the colossal sum of approximately $13,000,000,000 annually, the equivalent of more than $40,000,000 each working day, and has been increasing at the rate of $500,000,000 a year.

Seventeen prominent manufacturers, in a symposium on business conditions made public at the meeting, agreed generally in predicting a gradual improvement of business during the Fall with a return to normal next year. Some, however, foresaw a dull winter and little possibility of improvement before next summer. Some said it was impossible to tell just when the return to normal would come.

The following automobile men were elected as directors:—

Watt L. Moreland, Moreland Motor Truck Company, Los Angeles; C. E. Whitney, Whitney Manufacturing Company, Hartford, Conn.; A. J. McKay, Matthiessen & Hegeler Zinc Company, La Salle, Ill.; G. M. Williams, Marmon Motor Car Company, Indianapolis, Ind.; Frank Willard, Graton & Knight, Worcester, Mass.; Milton Tibbetts, Packard Motor Car Company, Detroit, Mich.; John Trix, American Injector Company, Detroit, Mich.; H. L. Derby, the Kalbfleisch Corporation, New York; P. O. Geier, Cincinnati Milling Machinery Company, Cincinnati; O. W. Buenting, Westinghouse Air Brake Company, Pittsburgh; W. W. Nichols, Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

In addition the following automotive men were elected state vice-presidents:—

Julius Goslin, Goslin-Birmingham Manufacturing Company, Birmingham, Ala.; W. Hume Logan, the Logan Company, Louisville, Ky.

BURGESS BATTERY REPORTS PROFIT GAIN OVER 1929

Madison, Wis., Oct. 9.—Good financial condition of the Burgess Battery Company, an indicated increase in sales of 16 per cent. from 1929 to 1930 and the prospect of the company making a small net profit for this year were shown in the report of the company at the thirteenth annual meeting held here October 2. All officers and directors of the company were re-elected as follows: C. F. Burgess, president; Duncan Keith and Vroman Mason, vice-presidents; W. B. Schulte, secretary; Benjamin S. Reynolds, treasurer; Howard F. Weiss, Conrad Martens, John F. Kaiser and A. J. Helfrecht, directors.

KELLY-SPRINGFIELD TIRE SALES SHOW INCREASE

New York, Oct. 9.—Sales of Kelly-Springfield Tire Company in September, 1930, showed an increase of 7 per cent. in dollars and 26 per cent. in units as compared with September, 1929. A comparison of September totals with August this year shows a slight decrease following a decline in export and manufacturers business, which was in part offset by an increase in business from dealers.

GAINS IN TAXATION ON TRUCKS MENACE

(Continued from Page 1)

claim there is any justice whatever in forcing trucks, which represent 12 per cent. of the nation's motor vehicles, to pay 28 per cent. of all vehicle taxes? Or is there any semblance of fairness in asking motor trucks to pay 100 per cent. more gasoline tax than the passenger car? Such ratios of taxation would be absurd even for a luxury. But bear in mind that this excessive taxation is directed against what is recognized as an economic necessity—a factor of tremendous importance in modern distribution.

"It is a matter of grave concern whether taxes will lead trucks 'over the road' to an enlarged field of service 'over the hill' to the industrial poor house.

"Certain it is that if the present practice of increasing the truck tax burden is permitted to go unchecked, the time is not far distant when highway carriers will be compelled to yield their position in the nation's extensive transportation system.

"Of recent years citizens of certain Southern states have sought, through extensive national advertising, to invite industrial capital to develop the natural resources of their states.

"How successful they have been is not know. However, if truck registration may be accepted as the 'yardstick' of industrial and commercial activity, the results have not been favorable.

"In those states, taxes exceeding $1,100 are assessed against the owners of common carrier trucks of only three-ton capacity.

"The fact remains that one of those states, with 52,000 trucks, ranks thirty-eighth among all the states in per capita ownership, while another with 25,000 trucks, is rated forty-sixth in per capita truck ownership.

"In half a dozen states the tax on larger trucks is over $1,000 each, and in about fifteen states it ranges from $500 to $1,000. In many cases these fees apply to heavy trucks of such average size as three tons. Since the average automobile tax is under $25 for registration fees and gas tax, it is hard to construe by any theory that there is justice in taxing any truck over $500 no matter what its size.

"The shrewd manufacturer seeking a site for a new factory invariably considers facilities for the distribution of his products. He knows well that no single community can consume all his merchandise—that he must expand over a very large area, and he knows that the motor truck is a necessary link in his distribution system. Is it then to be expected that he can be persuaded to invest his money where distribution will be handicapped? Can he afford to jeopardize his success by locating in a state where taxes on commercial haulage would seriously interfere with the development of his enterprise? To do so would be business suicide.

"It is significant that those states enjoying the greatest industrial prosperity fall in the classification of low truck-tax states. Perhaps this fact explains why nearly 40 per cent. of the truck ownership of the country is concentrated in these states.

"There the lesson of developing and maintaining facilities for economic and flexible transportation has borne fruit in industrial leadership. Therein is a lesson from which other states aspiring to greater development of industries might profit.

"If ever there was a time for effective organization work, it is the present. The tide of taxation can be turned by forceful, well directed opposition, but there is no time to lose, for right now much legislation against motor trucks is in the making—more unjust and discriminatory laws. The time to strike is now! Paraphrasing that memorable declaration of Revolutionary days, 'We in the motor truck and transportation business must either hang together or hang separately.'"

OIL INDUSTRY SURVEY SHOWS GASOLINE STOCK ABOVE REQUIREMENTS

Washington, Oct. 9.—The National Petroleum Association has completed a survey showing that the total stocks of gasoline at refineries for the week ended Sept. 27 was 37,222,000 barrels, working stocks required on September 30 were 28,984,000 barrels, and the excess of actual stocks over working requirements amounted to 8,238,000 barrels.

This has been the first survey of its kind and shows that the oil industry's stocks of gasoline have been and are entirely too high.

The excess of stocks has been caused by refining operations greater than demand for the product has warranted and also is said to explain the unsatisfactory returns which the industry is receiving from its operations as a whole in as much as gasoline is its principal source of income.

BUDD WHEEL SIX MONTHS PRODUCTION STEADY

Philadelphia, Oct. 9.—H. A. Coward, secretary of the Budd Wheel Company, announced that, in spite of conservative shipping schedules which have existed generally throughout the industry during the present year, production has this year has been very satisfactory.

"We produced 4,107,630 units in the first six months of 1930, consisting of wire, disk and truck wheels, brakes, assembly hubs and dri-drums," Mr. Coward said. "This compares with 4,517,705 units in the first six months of 1929, so that the company thus far is operating on a basis of 91 per cent. of last year's production."

GENERAL MOTORS OUTPUT IN 1930 TO BE 1,200,000

Cleveland, Oct. 9.—General Motors will build about 1,200,000 cars this year, as compared with 200,000 during the year of trade recession immediately following the war, Alfred P. Sloan, Jr., president, declared before a meeting of Cleveland dealers.

GRAHAM-PAIGE TO CLOSE EVANSVILLE BODY PLANT

Evansville, Ind., Oct. 9.—The Graham-Paige Body Corporation will close its factory here on October 15 for an inventory-taking period of fifteen days, according to announcement today by J. W. Evans, factory manager.

COMING EVENTS

OCTOBER

2-12—**Paris, France.** Automobile Salon.
6-11—**Washington, D. C.** Sixth international Road Congress.
6-11—**Washington, D. C.** American Roadbuilders' Association Convention
11-26—**Dallas, Tex.** Southwestern Automobile show.
13-15—**French Lick Springs, Ind.** American Society of Mechanical Engineers general meeting.
14-15—**Syracuse, N. Y.** New York State Dealers' Association Convention
15-17—**Washington, D. C.** Society of Industrial Engineers' convention.
16-25—**London, England.** Olympia Motor Show
20-22—**Atlantic City, N. J.** National Hardware Association convention.
20-24—**Atlantic City, N. J.** Middle Atlantic Automotive Jobbers' Association convention.
22-23—**New York.** Steel Founders' Society of America, Inc., meeting at Hotel Roosevelt.
22-24—**Pittsburgh, Pa.** Society of Automotive Engineers transportation meeting

NOVEMBER

3- 6—**Chicago, Ill.** National Tire Dealers Association Convention
7- 8—**Cleveland.** National Battery Manufacturers Association meeting at Hollenden Hotel.
6-16—**Berlin, Germany.** International Automobile Show.
8-15—**Chicago, Ill.** Automobile Salon at Drake Hotel
13-19—**Cleveland, O.** Motor and Equipment Association and National Standard Parts Association, Joint Show.
13-23—**Paris, France.** Commercial Vehicle Salon.
14-15—**Los Angeles.** Western Motor Clubs conference.

DECEMBER

6-17—**Brussels, Belgium.** Automobile Exhibition.

JANUARY

3-10—**New York.** National Automobile Show
8—**New York City.** Society of Automotive Engineers' annual dinner.
10-16—**St. Louis, Mo.** National Roadbuilders' show and convention.
17-24—**Detroit, Mich.** Annual Show, Convention Hall.
17-24—**Baltimore, Md.** Automobile Show.

MERCHANDISING
ACCESSORIES
EQUIPMENT

WHOLESALE

DISTRIBUTION
SHOP EQUIPMENT
REPLACEMENTS

DULUTH JOBBERS PUSHING SALES

Feature Winter Items In Preparation for Bigger Business

By ARTHUR G. PATTERSON

DULUTH, Minn., Oct. 9.—The wholesale jobbing business in Duluth and nearby trading territory was normal in September, according to the leading jobbers of Duluth in interviews with them. The winter season is now fast approaching and jobbers are stocking, featuring and pushing sales of winter goods.

F. L. Loomis, manager of the Hauson-Duluth Company, at 416 East Superior St., reports that business as a whole was normal in September, but that he expects an upward trend within the next sixty days, as he feels that the bottom of the depression has been reached, and that prospects for the sales of winter goods are very good. Shop equipment sales were normal in September, while repair work for garages was a little slow. Winter goods are opening up very good.

S. N. Peterson, manager of Paramount Service, Inc., at 521 East Superior St., reports that battery sales in September were very good. Electrical repair work was fair, while speedometer work was also fair. The tire business fell off in September. There is a noticeable pick-up in heater sales and winter goods business is opening fair.

C. P. Mayhew, manager of the Midwest Motor Specialty Company at 406½ East Superior St. reports that business was fair in September. This company, continuing its expansion program, has added the following lines: A large amount of sundry items; a line of C. E. Niehoff electrical replacement parts; Schwarze electric horns, which are selling very good; Heuchar armature exchanges; Clawson and Bals connecting rod exchanges and Champion spark plugs. This company also may add a line of winter goods later on.

NEW COMPANY FORMED TO SELL FREEZENOT

Akron, O., Oct. 9.—Freezenot-Glycero Company, a newly organized concern, having its temporary factory at High and Long Streets, will sell a non-freezable radiator liquid known as Freezenot. The election of Joseph E. Tankey as president, Harold A. Etling as secretary and Glenn J. Hartung as treasurer, was announced October 2.

Directors of the company include J. Howard Hill of the First City Trust Savings Bank; Attorney A. D. Zoon, H. L. Chambers of the Bankers Guarantee Title Trust Company; B. B. Klippel, a chemist of the American Hard Rubber Company; Etling of the Etling Lumber Company; Hartung of the American Hard Rubber Company, and Tankey, a member of the Tankey real estate firm.

Processes for the production of this non-freezable radiator liquid were developed by Hartung.

LION CHAIN MARKETS NEW ADJUSTERS

The Lion Chain Company of Chicago is just beginning to market its new tire chain adjusters, sold in sets of four, two adjusters to each wheel. They are put up in boxes.

The Cub tire chain adjuster, the maker says, can be fastened into place on the tire chains in a short time. Springs and hooks are copper plated. Four adjusters come to the set, two to be used on each wheel. Cub adjusters are also used when mounting tire chains. They are hooked on to the tire chain to hold it in place when driving car forward to bring the ends in place —preparatory to fastening connecting hooks.

Advertises Its Shop and Guarantees Accuracy

JOBBING A COMPLETE LINE of service replacement parts, tools and garage equipment shop service, the American Motor Specialty Company of Newark, N. J., has maintained a successful shop service, which it pushes at every opportunity. Behind the customers' counter, shown above, is a row of signs, one of which reads: "Behind Amsco Management Is a Well Equipped Shop With Trained Mechanics. Accuracy Is Our Watchword"

Editor's Column

THE recent action of trade association executives in protesting against the wholesale revision by the Federal Trade Commission of regulations adopted in trade practice conferences, has crystallized the growing disapproval by numerous industries of this procedure, adopted by the commission during the last year.

The resolutions, which were passed in a meeting at Niagara Falls, were substantially as follows: First, a protest against the proposed revision of rules; second, a recommendation to the commission that it drop the entire matter and leave the present regulations as they were, and third, a suggestion that individual rules be revised from time to time as the occasion might warrant. These resolutions will be submitted shortly to the Federal Trade Commission.

The meeting was the result of an announcement by the Federal Trade Commission in May, after it had started its policy of revising regulations already adopted, that each industry could file a brief, opposing any contemplated changes in its rules, within thirty days from September 25. The resolutions adopted at the conference are taken as representing the opinion of the hundred-odd industries which have held trade practice confereces.

Inquiry among trade associations during the past week revealed a distinctly critical attitude of the Federal Trade Commission. Unofficially, it is understood that the cause of the drastic revision of rules by the commission was the alleged misuse of certain regulations by some groups to affect prices. It is stated by association heads that these regulations are restricted to comparatively few industries. They resent the imputation, implied by a wholesale revision of all rules, that trade practices were adopted with an unlawful intent. It is felt that those guilty of such infractions should be punished, instead of havng the benefits of the trade practice conference removed by vitiating the rules.

There is a division of opinion, however, regarding the ability of the commission to punish violators. On one hand, it is pointed out that the Federal Trade Commission, under the act which authorized it to take means to eliminate unfair practices or to set up standards of fair ones, received sufficient authority to enforce these practices. The obvious failure of Congress, it was said, to specify what constituted unfair trade practices would indicate that the commission should have a discretionary power outside of the authority delegated to it by specific laws, such as the Clayton act and the Sherman anti-trust act. If it allowed industry after industry to set up these rules, when they were misused, the obvious and proper procedure, association executives say, would be to initiate a test case and determine the entire matter, rather than undo all the good previously accomplished by rewriting the rules.

Those defending the commission state that it divides trade conference resolutions into two groups. The first is accepted as lawful because existing laws give the commission power to enforce it. Group 2 consists of opinions of a trade. Although the commission may regard them as lawful, they are not necessarily enforceable, if a strict view of the commission's power is taken. And here is where difficulty has been encountered by the commission, for the courts have denied efforts on the part of the commission to extend the regulations of competition beyond the limits of the present law. It was also said that any trade association which relies upon the commission to enforce upon a dissenting minority regulations outside the present requirements of the law is expecting the impossible, as the commission has no power to do so.

What action the commission will take is not known. It is felt in some quarters that a continuance of present procedure wil mean the end of trade practice conferences. Their chief value, it is pointed out, is the elimination of unfairness not covered by specific laws. And if the commission cannot enforce practices which it has approved, unless backed up by specific legal authority, the value of the conferences is ended.

CHAIN BELT CO. ADDS TWO NEW DISTRIBUTORS

Milwaukee, Oct. 9.—Chain Belt Company announces the appointment of two new distributors in the construction equipment field, namely, the Alabama Machinery and Supply Company of Montgomery, Ala., and the Concrete Products Sales Company, Ltd., of Oakland, Cal.

E. S. TOLMIE MARKETING NEW RUNNING BOARD

E. S. Tolmie & Co., Inc., of Weymouth, Mass., is maketing the national running board for automobiles, all straight, devised so that parts and equipment jobbers will not have to stock a number of sizes to properly service their trade. The boards, according to the manufacturer, are double drilled on the underside, per the manufacturer's blue print, thus making it interchangeable as far as holes are concerned. Another feature is the short special hexagon head lag screw with a washer, with the proper quantity supplied in small bags, packed along with the board in an individual carton.

Wholesale Brevities

Dayton, O., Oct. 9.—D. W. Warden, vice-president in charge of merchandising for the Dayton Rubber Manufacturing Company, spent the latter part of September in the East, visiting Dayton distributors in New York, Massachusetts, Maryland and Pennsylvania. He reports Dayton's "cost plus plan of merchandising" now in general effect nearly two years has met with universal approval among distributors.

Vancouver Wash., Oct. 9. — The McCoy Auto Company, Clark county White truck and Goodyear tire distributor, has been appointed representative in this territory for the Electric Auto Lite Company of Toledo. The company will carry a complete stock of Auto Lite and De Jon starting, generating and ignition units. The McCoy Auto Company also carries Bosch starting, lighting and battery ignition units, according to Charles C. Pelton, who is in charge of the electrical department.

Newark, N. J., Oct. 9.—The Newark Auto Glass Works, for eleven years at 51 Williams St., has merged with the Clinton Auto Glass Works. The new concern will be known as the Ace Auto Glass Service, and will be at 357 Washington St. A new department for shatterproof glass has been created. The officers of the company are Benjamin Winter, president; Louis Karp, vice-president and Michael Karp, treasurer and secretary.

SEPTEMBER BEST MONTH IN SEATTLE

Jobbers Report Definite Upturn; Some Hit New Records

By D. M. TREPP

SEATTLE, WASH., Oct. 9.—The number of automotive jobbing concerns that report September as having been one of the best months of the year, is surprising. All agree that the upturn has started. Two or three concerns report the best month in their history. This is even more surprising. But certainly there is an undertone of improved business.

One of the companies that had an all-time record month is the Standard Motor Products, Inc., of which J. C. Baldwin is manager. This firm has been following an aggressive program of selling. "All electrical supplies were in sharp demand," said Mr. Baldwin, "and while ordinarily October is the best month of the year for us, September was so exceptionally good, establishing a new record, that we can hardly expect October to surpass it."

Another "best month" report was that of Charles Nudelman, manager of Motor Parts Company. This concern has been operating just a year, and September went ahead of any month's volume it ever enjoyed. The new Dupont Duco business helped put it over, according to Mr. Nudelman. "However, general business was very good," said Nudelman.

General reports appear to be that September opened with a spurt, and then during the closing days sagged somewhat. This is the report of J. A. Robblee & Co., Budd wheel distributors and service experts.

P. J. Cronin Company went over the top with a nice gain over August, according to J. P. Cronin. "The increase with us has been gradual since last March," he continued. "But during September there was a decided spurt. Equipment, service parts, oil and our new battery line, all shared in this gain."

Said E. J. McCarthy, manager of Cronin Company: "September sales were highly satisfactory, being 40 per cent. in excess of August, and we didn't lose any money in August."

Northwest Bearing and Parts Company took on Rusco products the past month and this helped boost its sales volume.

Some reports are that repair work is spotty and that procrastination of doing that repair job seems to still be the rule. However, Solon Grinding reports excellent business the past month, and also for Watkins Rebabbitting. Said Lorin Solon: "Business is gaining by leaps."

Meduna Machine Works reported the grinding business light.

Ballou & Wright find business coming along strong with the oncoming fall and demand keen for early buying of winter supplies. "Putting the car into shape for winter driving," said E. C. Walling, sales manager, "is a thought that the trade is going out after now. This is a bit of good merchandising that all can help boost for. The customer will appreciate the tips the tradesman gives him so the car will give the acme of performance."

Equipment sales are better; parts and supplies are good, and, with some modern new home opening about the state, Ballou & Wright report September well ahead of August, and fall outlook full of promise.

September rated well ahead of August for Ballou & Wright. "The increase is very satisfactory," said Mr. Walling. "Our steady gains started last June. Each month has gone forward definitely. It indicates that the automotive industry is on the upturn. Our early October orders for winter merchandise show the trade is awake to sales outlook. Early stocking and early selling is the order."

TIRE DEALERS MEET IN CHICAGO NOV. 3-6

Chicago, Oct. 9.—Operators of tire, battery and super service stations the country over are displaying interest in arrangements being made for the eleventh annual convention of the National Tire Dealers Association, slated for November 3, 4, 5 and 6, at Hotel Sherman, Chicago.

Group meetings, at which time tire and rubber company representatives will have an opportunity of meeting with dealers handling their respective tire lines will be a feature of this year's meeting, members of the N. T. D. A. executive committee, in recent session in Chicago, decided.

"The future of the retail tire merchant and his part in bettering business conditions" is the slogan adopted by the N. T. D. A. for its 1930 convention theme.

"Business conditions, especially in the retail tire field, have been poor, we grant," says President S. B. Harper of Fort Smith, Ark., president of the National Tire Dealers Association, "but in times such as we are now experiencing it is more important than ever that retail merchants stick together."

This year's convention will again feature an exposition at which will be shown all of the latest type equipment for tire and battery service stations. Included in exhibitors already committed to space are the following:—

Dill Manufacturing Company, Cleveland, O.; Kehawke Manufacturing Company, Minneapolis; A. Schrader's Sons, Inc., Brooklyn, N. Y.; Vacuum Oil Company, New York; Safety Vulcanizer Company, Chicago; Moline Iron Works, Moline, Ill., and many others.

The convention is slated to open promptly at 9.30 o'clock Monday morning, November 3, with President S. B. Harper handling the gavel. First day will be devoted to the truck and bus tire division activities with Fred Shukraft, second vice-president of the N. T. D. A., in charge of this work, in the chair. He will be assisted by Norval P. Trimborn, secretary-manager of the Chicago Truck Tire Credit Association.

Tuesday and Wednesday meetings will be devoted to discussions from the floor with the Tuesday night group meetings between dealers and tire manufacturers the focal point of interest.

Invitations to speak at the Tuesday and Wednesday meetings have been extended to W. K. Henderson, Shreveport, La., radio champion of the independent cause vs. chain store competition; to Samuel Woolner, Jr., president of the Rubber Manufacturers Association, and to Will Hays, who directs activities of the motion picture industry.

The annual banquet is slated for Wednesday night, November 5, and the entire day, Thursday, has been turned over to the United Tire Stores Corporation for its annual business meeting.

ILLINOIS GAS TAX NET REVENUE FOR FIRST YEAR

Springfield, Ill., Oct. 9.—First year of the new Illinois gas tax brought net revenue of $27,640,604.48 to the state, after deductions of $564,093.93, the 2 per cent. collection allowance. Tax was assessed against 940,156,606 gallons, and grossed $28,204,693.74. Refunds in amount of $565,128.25 were allowed. Peak consumption period was in July, when 97,647,000 gallons were taxed $2,870,822.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

Service Notes

Buffalo, N. Y., Oct. 9.—L. W. Schiedt has leased premises at 3196-3200 Bailey Ave., and has plans under way to remodel the building for use as a battery sales and service station, specializing in automotive electrical repair work.

Newark, N. J., Oct. 9.—New electric signs are to be placed on the Newark Avenue plant of Bayway Terminal of the same general size and brightness as the Durant signs which were taken down last week. Another change under way is the construction of a private entrance from North Avenue to the second floor, occupied by the Hydro Engineering and Chemical Company, a Standard Oil subsidiary. Space for the technical staff of that company was leased several weeks ago. Heretofore, this company used the main entrance of the plant.

Princeton, Ind., Oct. 9.—Announcement has been made here of the purchase of properties of the Premier Refining Company of this city by the Lincoln Oil Refining Company, one of the largest operators in this district. The purchase includes service stations operated over the county by the Premier company.

Erie, Pa., Oct. 9.—Comprising the most modern facilities for automobile body rebuilding, painting and rejuvenating, the John's Auto Body Works this week opened a sizable addition to its plant at 219 East 9th St., under the management of John Banks. Features of the new plant unit are the special departments for axle and wheel straightening, a one-stop super service station and a complete paint blending shop.

Evansville, Ind., Oct. 9.—W. G. Wilson and son, Oscar L., have sold their interests in the Central Tire and Service Station, 9th and Main Streets, Kelly-Springfield tire dealer, and oil service operator to W. H. Bayles and Denver Barnett, former employees. The business will continue under the old name.

Jersey City, N. J., Oct. 9.—Architect A. Davis has completed plans and specifications for a new one-story warehouse for the National Asbestos Company. The new structure will be erected in the rear of their present factory, which is located at 163-193 Henderson St. The building will have a frontage of 140x80 deep.

NEW COMMERCIAL CAR REGISTRATIONS FOR FIRST

NAME OF TRUCK	Alabama	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Mass'setts	Michigan	Minnesota	Mississippi	Missouri	Montana	Nebraska
Autocar		1		73		41	27	1	12	1	49	2		1	4		7	73	192	24			32		
Brockway-Indiana	1		3	8	10	53	20	33	49		77	205	6	10	32		23	81	143	15	33	2	85		11
Chevrolet	1806	364	1056	3715	1245	968	281	1241	1336	505	4690	2678	2740	3256	1267	1276	1300	1153	1789	2765	2281	1909	4085	546	1867
Diamond T.	1			39	1	65	1				522	53	27	13	13	2	8	60	128	49	85	1	129	1	14
Dodge	38	86	53	815	142	281	17	70	84	45	521	262	192	260	117	78	157	130	541	273	243	76	410	50	118
Essex	1	1		35	5	17	2	6	3		9	17	8	7	5		8	6	49	23	6	2	8	1	
Fargo	4	6	4	31	25	26	1		1	4	81	30	19	59	16	1	10	18	63	33	34	2	30	24	9
Federal	6		2	104	4	46		4	18		102	20	17	3	7	2		31	89	99	28	2	71	4	2
Ford	1743	770	1358	10148	1934	1732	432	2215	2008	799	6502	3905	2723	3092	1722	1673	1675	1989	5057	6481	3677	2192	5098	964	2359
G. M. C.	34	23	37	501	125	136	44	37	62	34	308	272	91	118	100	46	37	104	359	319	123	47	248	34	104
International	106	48	241	427	228	193	40	113	149	97	1222	582	974	532	318	197	181	274	484	464	644	187	744	302	472
Mack	20	3	9	216	9	163	9	17	20	11	128	2	34	5	24	26	23	128	262	47	31	18	65	13	18
*Paige	1	2	1	18	1	14		1	2		13	10	4	3	1		2	2	12	21	5		22		6
Relay				2	4	7		1			12	32	2		8			1	2	3	6		5		
Reo	21	19	14	558	55	171	20	44	20	19	217	135	126	86	62	14	81	104	279	189	136	24	123	32	34
Republic	4	5		32		3	1			1	13		1	16	5			13	6	45	5	2	11		
Rugby		7	1	73	13	1	1	4	6	6	7	6	16	8	4	1		4	7	17	11	2	15	5	3
Sterling				161		15				2	64						5	11	104	8			10		
Stewart		14		40		87	9				29	70	3	28	2			27	83	9			20		1
Studebaker	10	15	1	85	6	30			5	2		35	11	16	14	2	4	14	30	9	18	8	38	5	9
Whippet	4	1	5	31	13	12	2	17	15	3	137	46	19	27	15	3	15	10	31	36	41	19	99	16	20
White	30	8	28	260	37	43	6	43	51	6	132	32	19	35	31	36	10	115	169	45	49	15	77	19	25
Willys	8	4	11	23	84	17	2	4	11	8	56	63	97	48	21	10	32	16	16	61	101	6	92	18	67
Willys-Knight		2		21	1	10			4	3	31	15	16	84	5	2	9	5	13	8	12	1	18	2	9
Miscellaneous	3	6	11	878	54	100	6	4	4	10	725	59	28	26	69	22	1	85	111	139	55	2	197	11	37
Totals	3841	1385	2835	18294	3996	4231	921	3855	3860	1556	15647	8531	7173	7733	3862	3391	3588	4445	10019	11182	7624	4517	11732	2047	5185

*Six months report.

NEW COMMERCIAL CAR REGISTRATIONS FOR FIRST

Name of Truck	Alabama	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri	Montana	Nebraska
Autocar				119	1	61	12		8		70	10	1		7	3	7	98	198	44			34	3	
Brockway-Indiana	5		11	2	4	77	2	25	51		112	166	38	18	26	26	7	42	158	30		15	87		16
Chevrolet	2083	584	1957	3807	1491	1363	354	1150	1885	628	5584	3501	3638	4175	1387	1633	1357	1339	2498	5329	2531	1750	3843	858	2396
Diamond-T			3	10		51	1	1	1	1	785	57	17	20	20	14	11	63	117	52	14		196		13
Dodge	163	182	163	1697	304	498	36	101	167	92	1155	594	377	523	222	164	227	294	950	750	297	59	690	202	242
*Essex			1	2		2						3	3		1		1	4	10	16	1				
Fargo	5	8	12	89	43	47	1	3	10	5	114	29	55	70	20	5	21	15	141	111	27	5	43	24	19
Federal	12		8	182	18	43	1	2	11		104	48	20	5	5	5	1	35	111	168	50		96	22	5
Ford	1568	984	2535	10975	1754	1713	493	2102	2063	636	8136	4725	2617	3924	1513	2371	1471	1962	5163	9170	3592	1762	4794	1552	2293
G. M. C.	47	96	57	751	206	222	61	58	45	40	547	370	108	268	147	93	54	172	599	636	170	32	443	82	191
International	184	104	418	428	346	248	74	111	132	122	1693	610	1067	1063	324	375	99	282	563	804	674	198	786	427	628
Mack	12	5	7	306	11	261	5	24	29	15	252	17	37	15	40	23	26	161	347	103	33	1	125	17	19
Relay	1			4	1	15					15	33	13	2	14	1		3	4	11	5		5	2	1
Reo	21	36	49	820	54	402	30	47	29	42	409	287	230	150	108	21	164	170	652	609	190	29	220	93	77
Republic				32	3	3	2	3		1	12		3	9	4			10	3	18			16	4	1
Rugby	1	21	3	129	17	15	5			24		9	25	9	4	1	14	6	14	26	10	5	23	16	15
Sterling				216		15	1				76						4	34	143				23		
Stewart	1	3	1	58	1	107	2				24	71	1	10	4			36	69	2			9		
Studebaker	1	35	8	129	10	45	1	7	7	5		65	15	33	18	1	14	8	41	35	24	1	42	6	23
Whippet	30	17	45	58	40	49	4	22	38	9	198	143	129	223	48	20	37	20	80	176	115	15	190	28	75
White	28	11	39	307	39	52	11	41	60	20	192	58	27	34	36	39	4	110	201	70	62		75	31	29
Willys-Knight	1	6	1	15	5	15	1		2	3		7	6	23	6	4	6	2	16	24	13	4	4	13	4
Miscellaneous	14	9	32	1430	16	111	7	6	5	25	1060	63	41	48	56	4	14	102	277	274	57	2	177	17	44
Totals	4120	2101	5350	21566	4364	5415	1104	3703	4543	1668	20538	10866	8468	10622	4010	4803	3539	4973	12355	18458	7865	3878	12021	3397	8891

*One month report.

Public Service of N. J. To Use Gas-Electric Trolley Car System

Newark, N. J., Oct. 8.—Public Service Coordinated Transport has equipped three of its trolley cars with gas-electric motors, with a likelihood the future will see more so equipped. It is to use one between Bayway and Bonhamtown, on the Public Service Railroad Company, known as the Fast Line.

This was disclosed when Public Service applied to the Public Utilities Commission for a rehearing on its application for approval of local consents to operate fifteen buses between Newark and New Brunswick.

The innovation was explained by Arthur T. Warner, general manager in charge of traffic of Public Service Coordinated Transport. It appears the overhead structure on the Fast Line is in need of replacement. That would mean thousands of dollars outlay. Rather than make that expenditure, company officials decided to experiment with a gas-electric trolley car.

"The development has continued through the summer," Mr. Warner testified, "and has now been carried to completion. The equipment is an adaptation of the gas-electric principle in buses. The gas engine runs a generator, which in turn supplies the power to run the motors of the trolley cars. In effect, the car carries its own power plant."

The Public Service gas-electric trolley car is the first of its kind in the country, it was declared by Mr. Warner. It seems probable, if the experiment is successful such cars will be used in other parts of the state as overhead structures wear out.

The new type, Mr. Warner added, is almost noiseless, in contrast to the present trolley car.

It was stated that the plan of bus substitution calls for fifteen buses between Newark and Trenton, when the bus line is extended to that city. For service between Newark and New Brunswick only seven buses will be required. Between Bayway and Bonhamtown, a distance of eleven miles, the Fast Line will be used on its private right of way, with the gas-electric trolley car in operation.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

Bus Field Activities

Butler, Pa., Oct. 9.—The Pennsylvania Public Service Commission has authorized the Welsh Bus Transportation Company to add seven routes to its system out of Butler, a total of 125 miles. The company now has routes that cover 425 miles in western Pennsylvania. Four new buses, with a capacity of twenty-five passengers each, will be added to the service October 15. Completion of several improved highway links has made possible extension of the service. The longest route is to Meadville, eighty miles.

Lamesa, Tex., Oct. 9. — South Plains Coaches, operating a number of bus lines in this section of Texas, has been sold to the Red Star Bus Lines, with headquarters in Lubbock. Owners of the Red Star Lines are W. Watson, R. C. Bowen and J. W. Bowman.

Trenton, N. J., Oct. 9.—Increasing competition by motor buses is reducing the earnings of the railroads of New Jersey, the Abell audit and survey Comittee of the Legislature was told by Louis Focht, engineer of the state Board of Taxes and Assessment. The railroads pay a tax aggregating approximately $6,000,000 a year, while the buses are not taxed, he said. Mr. Focht also testified that, while the railroads' earnings have been decreasing since 1915, there has been a steady upward trend in operating expenses.

Indianapolis, Ind., Oct. 9.—Petitions for certificates to operate freight bus lines in Indiana have been filed with the public service commission by five motor transit companies. Poynter's Truck line of Ladoga, petitioned for authority to operate between Terre Haute and Parkersburgh through Greencastle. The Thomas Truck line of Clinton, asked permission to operate between Terre Haute and Dana. A line between Terre Haute and Danville, Ill., was asked by the McLaren Truck line of Terre Haute. The Lovelace Truck Service of Terre Haute, petitioned for authority to operate between Terre Haute and Robinson, Ill., and the Anderson Motor Service Company of St. St. Louis, Mo., petitioned for a certificate to operate in Indiana on an Indianapolis to St. Louis freight route.

Butler, Pa., Oct. 9.—The Harmony-Short Line Motor Transportation Company, a subsidiary of the Harmony-Short Line Traction Company, operating out of Pittsburgh to this city and New Castle, has been authorized to establish two new bus routes. One is between Pittsburgh and New Castle via Zelienople and Ellwood City. The other is from Zelienople to Portersville, where connection is made with other lines to towns of northwestern Pennsylvania. The new routes are on the Perry Highway, made famous by Oliver Hazard Perry on his trip from Pittsburgh to Erie in the War of 1812.

Vancouver, B. C., Oct. 9.—Two new motor stage lines are now operating out of Cranbrook, B. C. One service is operated by the Auto Interurban Company of Spokane, Wash., between that city and Cranbrook. The other service, between Calgary and Cranbrook, is operated by the Greyhound Company of Calgary. A daily service each way is given by both companies, and twenty-passenger de lux coaches are in use on both lines.

EIGHT MONTHS OF 1930 BY MAKES AND STATES

NAME OF TRUCK	Nevada	N. Hamp.	New Jersey	New Mexico	New York	N. Carolina	N. Dakota	Ohio	Oklahoma	Oregon	Penn'vania	Rhode Isle.	S. Carolina	S. Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washingt'n	W. Virginia	Wisconsin	Wyoming	Dist. of Col.	7 Months Totals
Autocar		1	120		267	11		105	13	15	301	29				7		1	23	3				27	1,463
Brockway-Indiana		31	244	12	1105	2		131	34	1	324	18	12	4	17	39		24	60		26	25		7	3,016
Chevrolet	84	477	2592	541	6191	1867	528	3566	2335	756	4589	355	1109	770	1401	6512	427	313	2819	1110	1059	3261	212	207	89,200
Diamond T.		46	127	1	466	5	13	41	7		110	7		18	7	17		13	3		18	141		17	2,269
Dodge	46	43	551	32	1160	140	36	494	243	84	1039	93	38	67	142	334	46	58	173	123	183	249	61	57	10,551
Essex		1	24		84	5		26	3	7	52	1	1	1	2	15	2		2	1	3	6		2	457
Fargo	2	3	42	6	130	10	23	55	32	12	88	19	5	10	5	72	1	5	7	28	11	28	7		1,132
Federal	1	9	88		153	4		86	64	47	151	21	15	4	64	24		2	38	23	8	63	1	5	1,532
Ford	234	870	5324	644	12513	2046	679	6807	2740	1713	9311	710	1288	390	1665	7536	891	671	2869	2661	1420	4251	416	646	141,034
G. M. C.	16	25	325	14	940	50	19	443	142	82	508	71	29	23	101	197	23	19	122	152	109	188	13	55	7,009
International	12	57	319	53	1406	185	356	882	455	139	1178	59	60	457	229	1250	73	117	249	239	260	669	51	27	18,001
Mack	7	26	398		985	18	1	116	61	48	578	22	10	11	40	59	10	6	44	32	2	21	1	8	3,805
*Paige	1	1	15		25	2	1	12	1	3	35	1			4	8	1			2	4	4	1	1	263
Relay			11		91			31	2		100	1				10			8	1	8	13		2	363
Reo	3	58	248	9	629	25	36	279	57	42	375	51	9	77	35	207	31	41	63	73	70	165	5	17	5,188
Republic			14		3	4		17	2	9	35	2	2	1	6	1			32		6	1	1		299
Rugby	1	2	23	1	31	5	7	33	7	22	51	2	2	7	3	22	9	1	4	32	6	11	3	1	504
Sterling	2	2	88		162			23		14	164	9								16		62		8	931
Stewart		18	52		707			101	2		394	4		1	3	6		7	22		8	42		3	1,792
Studebaker	1	7	47	4	88	4	2	31	7	10	93	10	3	4	10	26	2	3	5	12	7	20		1	764
Whippet	2	2	38	8	111	12	9	149	40	9	154	3	2	10	9	55	2	10	15	9	12	49	3	3	1,353
White	4	4	172	7	542	28		361	57	43	303	26	16	2	41	146	7	7	76	93	16	28	10	30	3,346
Willys		4	13	12	81	23	28	118	51	8	94	2	2	44	9	80	1	11	38	17	15	99	9		1,635
Willys-Knight	1	1	41	1	42	3	6	46	2	5	40			6	1	8		3	9	2	4	7	1		560
Miscellaneous	9	8	316	2	692	38	4	396	36	81	341	9	30	22	24	96	21	1	85	238	33	157	1	19	5,309
Totals	426	1696	11233	1347	28604	4487	1748	14349	6393	3150	20408	1525	2633	2429	3818	16727	1547	1313	6766	4867	3228	9560	796	1143	301,710

EIGHT MONTHS OF 1929 BY MAKES AND STATES

Name of Truck	Nevada	N. Hampshire	New Jersey	New Mexico	New York	North Ca'lina	North Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Ca'lina	South Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	West Virginia	Wisconsin	Wyoming	Dist. of Col.	Totals
Autocar		5	183		436	15		150	7	1	377	41				54			20		1	2		12	1,980
Brockway-Indiana		28	189	4	1288	14		183	50		324	9	18	2	23	93		17	50		38	5		20	3,273
Chevrolet	146	592	3411	598	8413	2819	856	5409	3356	1220	6010	514	1500	1086	1896	9607	468	398	2398	1551	1299	3334	237	320	114,664
Diamond-T		5	72		508		6	92	26	1	186	4		8	12	31		3	9		24	163		35	2,632
Dodge	110	115	718	85	2295	368	88	939	508	230	1763	210	121	115	186	814	117	123	245	349	238	450	120	54	20,449
*Essex		2			9			7	1		6				1	1		1							71
Fargo	7	9	118	17	434	15	9	118	55	25	240	26	15	9	4	87	7	22	4	31	11	49	8		2,249
Federal	1	11	126	3	209	11	4	113	64	54	122	34	32	2	47	38		23	39	25	20	71		3	2,004
Ford	350	834	5042	537	12770	2786	978	7769	3809	1992	10137	625	1485	1007	1543	9413	922	628	2638	2936	1541	5098	459	865	156,032
G. M. C.	20	55	437	37	1048	149	80	542	181	159	725	129	65	54	165	457	24	52	117	198	116	250	15	53	10,623
International	23	47	324	99	1568	162	635	1104	807	202	1146	52	111	632	189	2049	78	186	291	314	291	733	73	39	22,915
Mack	5	17	471		1255	57		195	49	64	905	64	13	8	47	78	23	34	34	39	4	34	4	45	5,036
Relay			19		81		2	30	2		109			18		27		2	6	7	15	22		8	483
Reo	7	67	438	16	1100	42	37	521	140	128	862	170	13	78	61	351	37	76	110	176	106	289	21	28	9,219
Republic	1		11		15	7		19	3	8	46		4	1	5				30	9	5	2			290
Rugby	2	4	30	2	60	13	12	27	4	36	61	12	3	11	1	34	17	4	13	47	6	20	5	1	817
Sterling	1	3	79		145			21		16	230	16		1						4		99		10	1,137
Stewart		13	54		584	9		46	11		289	25	4	2		13		15	26		13	56		22	15.21
Studebaker	3	6	65	2	112	11	4	50	29	15	93	8	2	28	18	41	8	8	15	21	11	36	6		1,166
Whippet		16	116	31	312	34	26	374	136	21	314	12	13	18	22	237	11	15	41	58	26	124	5	12	3,783
White	7	6	245	20	639	35	4	416	65	84	446	26	12	5	45	148	20	16	62	131	20	54	11	40	4,133
Willys-Knight	1	3	36		32	1	8	63	7		31	2		7	5	11	1	5		2	6	16			418
Miscellaneous	33	7	672	2	1373	78	17	425	57	103	539	31	10	14	24	89	11	18	11	223	22	180	4	23	7,857
Totals	717	1845	12856	1453	34690	6632	2766	18612	9367	4359	24661	2010	3425	3106	4294	23673	1744	1646	6159	6121	3813	11087	968	1590	373,412

Production--Engineering--Factory

S. A. E. Sponsors Outline Production Needs for 1931

Detroit, Oct. 9.—In order to make their plans for next year's production meeting, officers of the S. A. E. wired the sponsors: "Please send by night letter what you consider the greatest production need in the automotive industry for study during the coming year." Several of the responses were posted in headquarters at the Book-Cadillac and were widely read by those in attendance at the meeting. Some of the replies were as follows:

K. T. Keller, Chrysler Corporation, Detroit: "Greatest production need is more accurate forecast of quantity requirement. I believe the S. A. E. can analyze the trend of sales history of past years and evolve formula for quantity control which would reflect better operating conditions in plants' engineering departments, sales and distribution and be of great help to dealer organizations, resulting in more uniform working schedules, more constant employment on part of workmen, thereby securing higher quality of merchandise, more stable costs, more stable selling prices and more stable satisfaction on the part of ultimate users."

Ralph Murphy, H. H. Franklin, Syracuse: "A growing and important need in the automotive industry is development of a method to tie sales' needs into production. Variety of models and colors needed by sales is such that there is a problem for production to get these out as needed without much warning and still produce economically."

B. H. Warner, Pierce-Arrow, Buffalo: "Question received from your society as to greatest production needs might prompt an answer on engineering or machine design, but I believe our problem is one of more harmonious co-ordination of all divisions willing to assume their responsibilities toward the one objective, that of lower costs and elimination of waste on a production schedule equal only to the demand or an effort to stabilize working hours."

W. R. Wilson, Reo, Lansing, Mich.: "Most important matter for production in automotive industry is a study of means for making more even the annual curve of automobile production and employment."

J. A. Sheldon, Willys-Overland, Toledo: "I consider the greatest production need in the automotive industry to be management and scientific research."

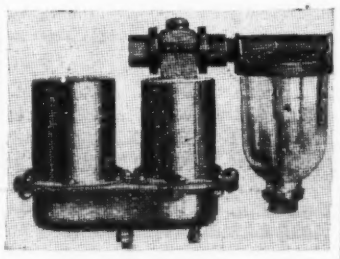
V. P. Rumely, Hudson, Detroit: "(1) Technique of welding body panels. (2) Ground versus unground hobs for roughing. (3) Micromotion applications and relations to tool designs. (4) Chromium plating, rustless and permanent. (5) Hypoid gear status. (6) Metal cleaning for enamel and paint. (7) Rustproofing metal. (8) Chromium plating of new and used cast iron dies.

"Remarkable results have been secured by some manufacturers by applying chromium plating to dies, which prolongs life and reduces maintenance costs to such an extent as to attract the interest of the more important press shop requirements."

L. L. Roberts, Packard, Detroit, replying for E. F. Roberts: "I think some method should be devised for preventing distortion of accurately machined parts during the heat treating process, or if this cannot be accomplished other methods to accurately and inexpensively finish splines, gear teeth, worm and sector teeth and other parts of similar nature with uneven contours."

J. W. Brussel, Timken-Detroit Axle, Detroit: "I believe the greatest production need for study during the coming year is a more scientific and thorough analysis of material handling, direct and indirect labor costs and costs of expense supplies."

ELECTRIC FUEL PUMP



JONES Electric Fuel Pump

The Jones electric fuel pump is made of brass and hardened cadmium plated steel parts. It is made in different models that use six volts, twelve volts or thirty-two volts.

It is operated by a magnet which compresses a copper bellows on the suction stroke. The reaction of the bellows causes the discharge stroke which, in turn, is controlled by the carburetor float. When the float falls, the discharge stroke of the bellows occurs. When the float rises and closes the needle valve, the reaction of the bellows ceases until the float falls again.

Pumping capacity is eighteen to twenty gallons per hour. It will lift five feet and pump against a six-foot head. The current consumption is .04 amps. at six volts. Sylphon type of pumping element is used. Marketed by Jones-Motrola Sales Company, New York.

ORGANIZED RESEARCH UNDERTAKEN IN FIELD OF IRON ALLOYS

A summary of world progress in the field of iron alloys, advance in which is held to be fundamental for American industry, is the object of a program of research enlisting the co-operation of more than sixty industrial and scientific organizations and corporations of the United States, under the leadership of the Engineering Foundation.

A fund of $230,000 to make possible a review of all available literature has been contributed by the co-operating organizations.

The scope of the investigation, which is described as the most ambitious ever undertaken in this field, was outlined by an advisory committee headed by John Johnston, director of research and technology of the United States Steel Corporation. Supervision of the program, which will require five years for completion, has been delegated to an iron alloys committee, of which Dr. George B. Waterhouse, professor of metallurgy in the Massachusetts Institute of Technology, is chairman.

As its initial task, the foundation and its co-operating organizations are conducting a critical review of all available literature in English and other languages. Coincident with this review, two lines of original research into iron alloys have been initiated. Others will be taken up later as the need for them is revealed by the critical examination of the very extensive literature.

NEW HELPER SPRINGS FOR FORD TRUCKS

The Maremount Manufacturing Company, Chicago, has developed a cantilever-type helper spring, said to increase the carrying capacity of Ford "AA" trucks by an additional ¾ to 1 ton of pay-load.

On short wheel base trucks a bolt through the spring-seat flange, passing through the third hole from the rear of frame, prevents shifting.

On long wheel base trucks two recesses in the spring seat straddle two rivets under "cross-member" to prevent shifting.

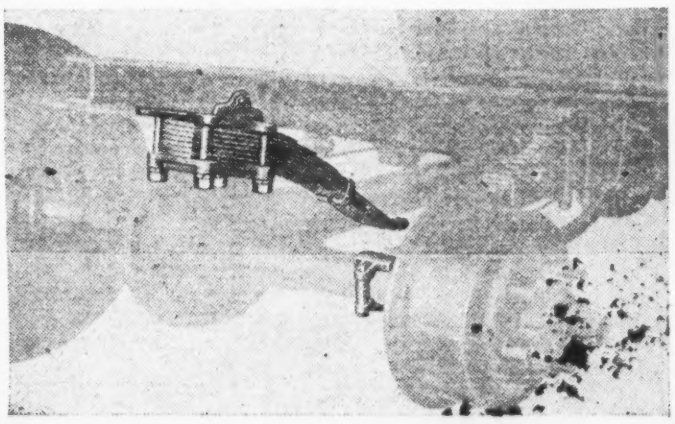
The cantilever type also fits the Ford "AA" truck.

The semi-elliptic type helper springs, it is claimed, provide 1½ to 2 tons additional carrying capacity for Ford "AA" trucks. The bolts in the radius rod of the chassis do not have to be removed to install the springs, nor do the brake levers have to be bent.

The manufacturers state that a mechanic can install either type in less than twenty minutes without the use of special tools.

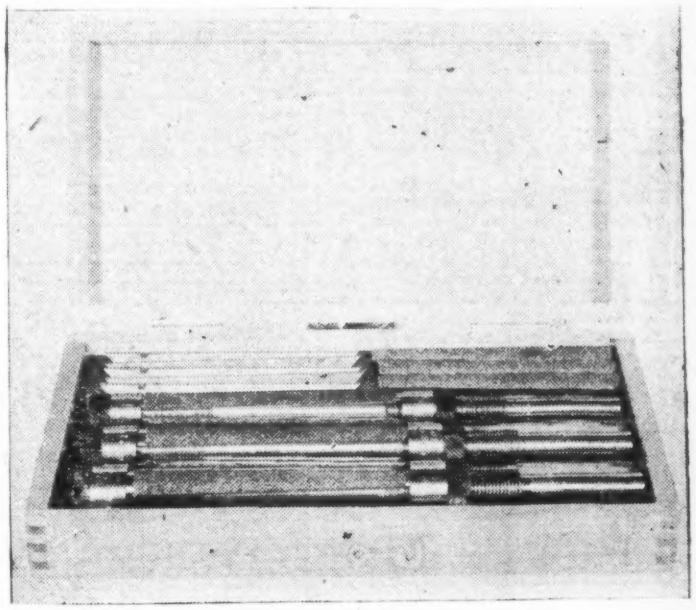
It is unnecessary to make any alterations to install these springs.

The cantilever type are priced at $22.50 per set and the semi-elliptic at $30.



MAREMOUNT cantilever-type helper spring, No. 10X

New Piston Pin Hone



The Beard piston pin hone has a micrometer adjustment and is available in a range from .730 to 1.125 inches. Each tool has ⅛-inch expansion, one-sixteenth inch with the blades resting solidly in the grooves and one-sixteenth more with a set of shims under the blades.

Each hone has three abrasive cloths, giving the tool a three-point bearing surface. The abrasive is crimped on metal, which can be removed for replacement.

The price of the set illustrated is $36. Abrasives cost $2.25 per dozen and are sold only in dozen lots. Manufactured by the L. O. Beard Tool Company, Lancaster, Pa.

Crude Is Vital Factor in Oils

In the September 10 edition of the Automotive Daily News an article appeared, "Lubricants of Quality Product of Many Fields." The following article presents a contrary view.

C. J. Livingstone, of the Society of Automotive Engineers and the American Chemical Society, and formerly of the Mellon Institute of Industrial Research in Pittsburgh, takes violent issue with various engineering and chemical students who have recently issued pronouncements that the crude oil from which lubricants are made is not an important factor, but that the quality of an oil depends entirely upon the refining.

"It must be remembered," says Mr. Livingstone, "that there are three different type crudes produced in this country, containing very little, to a great amount of objectionable material, which is usually removed by refining. Lubricating oils made from these crudes can always be distinguished by their properties. No amount of refining can change these typical or inherent characteristics, because they depend upon the chemical and physical composition of the crude.

"For instance, the change in viscosity, due to temperature, may be small or large. This temperature viscosity effect varies with the different crudes nd is a reliable indication of the crude source of a lubricating oil. The ideal oil would be one that would not change its viscosity with change of temperature. The next best is oil made from Pennsylvania grade crude. Attempts have been made to duplicate the viscosity temperature curve of Pennsylvania oil from other crudes, but to my knowledge no refiner has ever been able to perform this feat. That is why lubricants made from Pennsylvania grade crude have been classed as the best in the world.

"After all, no one company has a monopoly on the art of refining. It is not difficult to make good oil from any type crude, but you cannot make Pennsylvania oil from Coastal crude any more than you can make Coastal from Pennsylvania."

Secondary Aluminum Subject of New Book

The Sherwood Press, Inc., Cleveland, announces that "Secondary Aluminum," by Robert J. Anderson, D. Sc., will soon be ready for distribution. This is reputed to be the first book published on the subject, according to the announcement.

It is stated that the book is a comprehensive treatise dealing with the raw material used in making secondary aluminum, metallurgy, technology, methods of production, utilization of secondary metal and scrap, and the economics of the secondary aluminum industry.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

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Major Specifications and Mechanical Details of 1930 Commercial Cars Built in the United States

Make and Model	Capacity—Tons	Chassis Price	Engine	No. of Cyl.	Bore and Stroke	Tax H. P.	Oil System	Carburetor	Fuel Feed	Ignit. System	Gear Set	Location	No. Spds. For.	Rear Axle	Final Drive	Reduction in Low	Brakes, Foot	Brakes, Hand	Standard Wheel Base	Chassis Weight	Standard Tire Sizes Rear	Front
Am. La France Chief	2	3650	Own	6	3¾x5	33.0	Pw	Str	Vac	DR	Own	C	4	Tim	Wo	31.2	4	D	156	6200	32x6	32x6D
Am. La France W	3-4	3950	Own 2 R	4	4¼x6	28.9	CS	Zen	Vac	AB	Own	C	4	Own	2R	47.4	4	R	160	7200	S36x5	S36x5D
Am. La Fran. Chieftain	3-4	5500	Own	6	4⅛x5⅛	40.8	Pw	Zen	Vac	DR	Own	C	4	Tim	Wo	28.8	4	D	176	7200	S36x8	36x8D
Am. La France V	5	5500	Own 5 R	4	4¾x6	36.2	CS	Zen	Vac	AB	Own	C	4	Own	Wo	54.4	4	R	165	9800	S36x5	S40x6D
Am. La Fran. Big Chief	6	6725	Own	6	4½x6	48.6	Pw	Zen	Vac	DR	Own	C	4	Own	2R	32.8	4W	D	226	10600	S40x8	S40x8D
Am. La France U	7½	6000	Own 5 R	4	4¾x6	36.2	CS	Zen	Vac	AB	Own	C	4	Own	—	63.5	4	R	165	10500	S36x7	S40x8D
Austin	—	*	Own	4	2.2x3	7.8	CS	Til	—	Aut-L	W-G	U	3	Sal	Sp	—	4	4	75	——	3.75x18	3.75x18
Autocar A	1½-2	3200	Own	6	4 x4¾	38.4	Pw	Str	Vac	DR	Br-L 51	U	4	Own SA	Sp	27.9	4	R	150	5060	34x7	34x7
Autocar D	2-2½	3500	Own	6	4 x4¾	38.4	Pw	Str	Vac	DR	Br-L 51	U	4	Own SD	2R	33.7	4	R	150	5300	34x7	34x7D
*Autocar SH	2½-3	4300	Own	6	4¼x4¾	43.4	Pw	Str	Gra	LN	Own T	U	4	Own H	2R	44.3	R	R	114	6770	34x7	34x7D
Autocar SCH	2½-3	4300	Own	6	4¼x4¾	43.4	Pw	Str	Vac	LN	Own T	U	4	Own H	2R	44.3	R	D	157	6860	34x7	34x7D
*Autocar H	3	4100	Own	4	4½x5½	32.4	CS	Str	Gra	AB	Own T	U	4	Own H	2R	48.6	R	R	114	6770	34x7	34x7D
*Autocar HS	3½	4600	Own	4	4½x5½	32.4	CS	Str	Gra	AB	Own T	U	4	Own C	2R	53.6	R	R	114	7900	40x8	40x8D
*Autocar SHS	3-3½	4800	Own	6	4¼x4¾	43.4	Pw	Str	Gra	LN	Own T	U	4	Own C	2R	53.6	R	R	114	7900	40x8	40x8D
*Autocar SCHS	3-3½	4800	Own	6	4¼x4¾	43.4	Pw	Str	Vac	LN	Own T	U	4	Own C	2R	53.6	R	D	157	8180	40x8	40x8D
Autocar TEA	3-3½	5350	Own	6	4¼x4¾	43.4	Pw	Str	Vac	LN	Own T	U	12	Own TE	2R	101.7	4	D	192	8900	36x8	36x8D
Autocar TFA	3½-5	6100	Own	6	4½x4¾	48.6	Pw	Str	Vac	LN	Own T	U	12	Own TF	2R	101.3	4	D	192	9300	38x9	38x9D
Autocar C	3½-5	5500	Own	6	4½x4¾	48.6	Pw	Str	Vac	LN	Own B	C	4	Own C	2R	61.7	R	D	172	9500	42x9	42x9D
Autocar F	7½	6800	Own	6	4½x4¾	48.6	Pw	Str	Vac	LN	Br-L 70	C	7	Tim	Wo	94.0	4	D	173	11000	36x7S	40x8DS
Autocar G	10	9000	Own	6	4½x4¾	48.6	Pw	Str	Vac	LN	Br-L 70	C	7	Tim	Wo	97.7	WB	D	171	13000	36x8	36x8D
Brockway 65	1	1195	Con	6	3⅜x4⅝	27.3	Pw	Zen	Vac	Aut	Br-L	U	3	Col	Sp	21.3	4	Tr	137	3400	30x5	30x5
Brockway 75	¼	1290	Con	6	3⅜x4⅝	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Col	Sp	25.6	4	Tr	137	3450	32x6	32x6
Brockway 90	1½	1525	Con	6	3⅜x4⅝	27.3	Pw	Zen	Vac	Aut	Br-L	U	4	Col	Sp	25.6	4	Tr	149	3650	32x6	32x6
Brockway 120	2	1990	Con	6	4 x4⅛	38.4	Pb	Zen	P	Aut	Br-L	U	4	Tim	Sp	—	4	Tr	156	5200	32x6	32x6D
Brockway 140	2	2495	Con	6	4 x4⅛	38.4	Pb	Zen	P	Aut	Br-L	U	4	Wis	2R	—	4HV	D	156	5500	32x6	32x6D
Brockway 170	2½	3160	Con	6	4¼x4¾	40.8	Pb	Zen	P	Aut	Br-L	U	4	Wis	2R	—	4HV	D	170	6800	32x6	32x6D
Brockway 195	3	3820	Con	6	4⅛x4¾	40.8	Pb	Zen	P	Aut	Br-L	U	4	Wis	2R	—	4HV	D	170	7500	34x7	34x7D
Brockway 190	3	4185	Con	6	4⅛x4¾	40.8	Pb	Str	P	Aut	Br-L	C	7	Tim	Wo	—	RV	D	168½	7625	34x7	34x7D
Brockway 220	3½	4560	Con	6	4⅜x4¾	45.9	Pb	Zen	P	Aut	Br-L	U	4	Wis	2R	—	4HV	D	170	8200	36x8	36x8D
Brockway 250	5	5950	Con	6	4⅜x4¾	45.9	Pb	Str	P	Aut	Br-L	U	4	Tim	Wo	—	4HV	D	182	10000	40x8	40x8D
Brockway 290	7½	7250	Con	6	4¾x5⅜	54.15	Pw	Str	P	L-N	Br-L	C	7	Tim	Wo	—	4W	D	182	10750	38x7	40x14S
Brockway 640	10	9700	Con	6	4¾x5⅜	54.15	Pw	Str	P	L-N	Br-L	C	7	Tim	Wo	—	4W	R	212	14000	38x7	36x10S
Chevrolet	½	365	Own	6	2⅛x3¾	26.3	CS	Car	P	DR	Own	U	3	Own	Sp	13.61	4	R	107	1835	4.75x19	4.75x19
Chevrolet	1½	520	Own	6	3⅛x3¾	26.3	CS	Car	P	DR	Own	U	4	Own	Sp	33.46	4	R	131	2375	30x5	30x5
Commerce Series S 11	2	2030	Bud H S 6	6	3⅜x4½	27.3	Pb	Zen	Vac	Aut	Br-L 20	U	4	Tim 54006	Sp	29.2	4		162	4500	32x6P	32x6D
Commerce Series 40	2	3240	Bud D S 6	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Br-L 35	U	4	Tim 63702	Wo	34.8	4		168	4900	36x6	36x6D
Commerce Series 40	2½	3240	Bud D S 6	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Br-L 35	U	4	Tim 63702	Wo	34.8	4		168	5100	36x6P	36x6D
Commerce Series 60	2½	4580	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Ful	U	5	Tim 65706DH	Wo	63.0	4		175	7000	36x6P	36x6D
Commerce Series 60	3	4680	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Ful	U	5	Tim 65706DH	Wo	63.0	4		175	7100	36x6P	36x6D
Commerce Series 80	3½	5250	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	C	7	Tim 66700DP	Wo	98.2	B		175	8200	36x6S	36x12S
Commerce Series 80	4	5330	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	C	7	Tim 66700DP	Wo	98.2	B		175	8400	36x6S	36x12S
Commerce Series 100	5	5830	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	C	7	Tim 68700DP	Wo	95.0	B		175	9600	36x6S	40x14S
Day Elder 60	1	1195	Con 25 A	6	3⅜x4	27.3	Pw	Zen	P	DR	W-G	U	4	Tim	Sp	36.3	4	R	135	3200	20x6.00B	20x6.50B
Day Elder 85	1½	1645	Con 16 C	6	3⅜x4⅝	27.3	Pw	Zen	P	DR	W-G	U	4	Tim	Sp	42.3	4	R	135	3750	20x6.00	20x6.50DB
Day Elder 110	2	2095	Con 16 C	6	3⅜x4⅝	27.3	Pw	Zen	P	DR	Br-L	U	4	Tim	Sp	44.9	4	D	156	4600	20x7.00	20x7.00DB
Day Elder 130	2½	2895	Con 16 R	6	4 x4⅛	38.4	Pw	Zen	P	DR	Br-L	U	4	Tim	Sp	40.7	4	D	150	6300	20x7.50B	20x7.50DB
Day Elder 160	3	3695	Con 18 R	6	4 x4½	38.4	Pw	Zen	P	DR	Br-L	U	4	Tim	Wo	36.1	4	D	156	6600	20x7.50B	20x9.00DB
Day Elder 200	4	4295	Con 18 R	6	4 x4½	38.4	Pw	Zen	P	DR	Br-L	U	4	Tim	Wo	43.5	4	D	156	7400	20x9.00B	20x9.00B
Day Elder 240	5	5500	Con 21 R	6	4⅜x4¾	45.9	Pw	Zen	V	DR	Br-L	C	7	Tim	Wo	50.8	4	D	162	9300	38x9P	38x9DP
Day Elder 285	8	6000	Con 21 R	6	4⅜x4¾	45.9	Pw	Zen	V	DR	Br-L	C	7	Tim	Wo	71.2	6	D	164	12000	20x8.25B	20x8.25DB
Day Elder 345	10	7500	Con 21 R	6	4⅜x4¾	45.9	Pw	Zen	V	DR	Br-L	C	7	Tim	Wo	79.9	4	D	164	12500	20x9.00B	20x9.00DB
Day Elder 402	12	8500	Con 16 H	6	4¾x5¾	54.2	Pw	Zen	P	DR	Br-L	C	7	Tim	Wo	84.6	4	D	164	14000	20x9.75B	20x9.75DB
Diamond T 200	1	785	Bud	4	3¾x4½	22.5	*Pw	Zen	P	Aut	W-G	U	4	Cla	Sp	—	4	D	128½	3050	30x5	30x5
Diamond T 215	1	885	Bud	6	3⅜x4	27.3	Pw	Zen	P	Aut	W-G	U	4	Cla	Sp	—	4	D	135⅛	3150	30x5	30x5
Diamond T 290	1½	1475	Her WXA 2	6	3½x4½	29.4	Pb	Zen	Vac	Aut	Cov	U	4	Col	Sp	—	4	D	156¼	4160	30x5	30x5D
Diamond T 303	2	1745	Her WXB	6	3¾x4½	33.7	Pb	Zen	Vac	Aut	Cov	U	4	Tim	Sp	—	4	D	160¾	4850	32x6	32x6D
Diamond T 551	2½	2250	Her WXC	6	4 x4½	38.4	Pb	Zen	Vac	Aut	Cov	U	4	Tim	Sp	—	4	D	168	5600	32x6	32x6D
Diamond T 503	2½	2660	Her WXC	6	4 x4½	38.4	Pb	Zen	Vac	Aut	Cov	U	4	Tim	Wo	—	4	D	174	6200	34x7	34x7D
Diamond T 506	2½	2820	Her WXC	6	4 x4½	38.4	Pb	Zen	Vac	Aut	Cov	U	4	Wis	2R	—	4	D	172½	6300	34x7	34x7D
Diamond T 602	3	3440	Her YXC	6	4⅜x4¾	45.9	Pb	Zen	Gra	Aut	Cov	C	4	Tim	Wo	—	4	D	169½	7500	36x8	36x8D
Diamond T 606	3	3500	Her YXC	6	4⅜x4¾	45.9	Pb	Zen	Gra	Aut	Cov	U	4	Wis	2R	—	4	D	186	7500	36x8	36x8D
Diamond T 700	3½	3740	Her YXC	6	4⅜x4¾	45.9	Pb	Zen	Gra	Aut	Cov	C	4	Tim	Wo	—	R	D	162	8100	S36x5	S36x10
Diamond T 801	4	4140	Her YXC	6	4⅜x4¾	45.9	Pb	Zen	Gra	Aut	Br-L	C	7	Own	Wo	—	6WH	D	189½	8300	36x8 4 wh	36x8
Diamond T 1000	5	4420	Her YXC 2	6	4½x4¾	48.6	Pb	Zen	Gra	Aut	Br-L	C	4	Tim	Wo	—	R	D	170½	9700	S36x6	S40x12
Diamond T 1200	6	5600	Her YXC 2	6	4½x4¾	48.6	Pb	Zen	Gra	Aut	Br-L	C	7	Tim	Wo	—	4RW	D	180	11000	34x7 4 w h	34x7D
Diamond T 1600	8	6220	Her YXC 3	6	4⅝x4¾	51.3	Pb	Zen	Gra	Aut	Br-L	C	7	Tim	Wo	—	4RW	D	190	11700	36x8 4 wh	36x8D
Diamond T 1601	8	7500	Wak 6 R B	6	5 x5¾	60.0	Pb	Zen	Gra	Mag	Br-L	C	7	Tim	Wo	—	4RW	D	194	12500	36x8 4 wh	36x8D
Diamond T 2500	10-12	8000	Wak 6 R B	6	5 x5¾	60	Pb	Zen	Gra	Mag	Br-L	C	7	Tim	Wo	—	4RW	D	194	13100	S36x7 4 wh	36x12S
Dodge Bros. UF10A	½	435	Own	4	3⅝x4¾	21.2	Pb	Car	P	DR	Own	U	3	Own	Sp	14.28	4	D	109	1855	5.00x19	5.00x19
Dodge Bros. F 10 A	½	515	Own	6	3⅛x4⅛	23.4	Pb	Car	P	DR	Own	U	3	Own	Sp	14.28	4	D	109	1960	5.25x19	5.25x19
Dodge Bros. U-1	¾	695	Own	4	3⅝x4¼	21.3	Pb	Car	Vac	NE	Own	U	4	Own	Sp	21 68	4	D	124	2260	5.50x20B	5.50x20B
Dodge Bros DA1	¾	795	Own	6	3⅜x3⅞	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	36.83	4	D	140	2955	30x5	30x5
Dodge Bros. UF30A	1½	595	Own	4	3⅝x4¾	21.0	Pb	Car	P	DR	Own	U	4	Own	Sp	37.17	4	D	136	2665	6.00x20	32x6
Dodge Bros. F 30 A	1½	695	Own	6	3⅛x4⅛	23.4	Pb	Car	P	DR	Own	U	4	Own	Sp	37.17	4	D	136	2765	6.00x20	32x6
Dodge Bros. F 35 A	1½	1425	Own	6	3⅜x2⅞	27.3	Pb	Zen	P	DR	Own	U	4	Own	Sp	41.43	4	D	140	3780	6.00x20	6.00x20D
Dodge Bros. F 40 A	2	1995	Own	6	3⅜x5	31.5	Pb	Zen	P	DR	Own	U	4	Own	Sp	43.73	4	D	150	5175	6.50x20	6.50x20D
Dodge Bros. F 60 A	3	2645	Own	6	3⅜x5	31.5	Pb	Zen	P	DR	Own	U	4	Own	Sp	48.87	4	D	146	5543	32x6	32x6D
Dodge Bros. F 61 A	3	2575	Own	6	3⅜x5	31.5	Pb	Zen	P	DR	Own	U	4	Own	Sp	48.87	4	D	170	5789	32x6	32x6D
Durant	¾	495	Con	4	3⅜x4¼	18.2	Pb	Til	Vac	Aut	Own	C	3	Own	Sp	16.16	4	4	107	1670	28x4.75	28x4.75
Essex Commercial	¾	445	Own	6	2¾x4½	18.2	CS	Mar	Vac	Aut	Own	U	3	Own	Sp	17.8	4	4	110	2150	30x5	31x5.50
Fargo Packet	½	595	Own	6	3⅛x4⅛	23.4	Pb	Str	Vac	NE	Own	U	3	Own	Sp	14.29	4	Tr	——	1935	5.00x19	5.00x19
Fargo Clipper	¾	725	Own	6	3⅛x4¼	23.4	Pb	Str	Vac	DR	Own	U	3	Own	Sp	15.53	4	Tr	——	2325	5.50x18	5.50x18
Fargo Freighter	1	795	Own	6	3⅛x4⅛	23.4	Pb	Str	Vac	NE	Own	U	4	Own	Sp	37.19	4	Tr	——	2725	6.00x20	32x6
Federal D	1-1½	830	Con W 10	4	3⅞x4¼	24.0	Pb	Zen	P	DR	W-G T9	U	4	Cla B374	Sp	40.8	4	Tr	131	3185	6.00x20	32x6
Federal E6	1-1½	1090	Con 17 E	6	3⅜x4	27.3	Pb	Zen	Vac	DR	W-G T9	U	4	Cla B370	Sp	34.6	4	Tr	132	3260	6.00x20	32x6
Federal F7	1½	1525	Con 16 C	6	3⅜x4⅝	27.3	Pb	Zen	P	DR	Own	U	4	Tim 52005H	Sp	24.3	4	Tr	132	3765	30x5	30x5D
Federal A6	2	1855	Con 16 C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	DR	Own	C	4	Cla B610	Sp	38.5	4	Tr	151	4580	32x6	32x6D
Federal A6T	2½	2185	Con 16 C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	DR	Own	C	4	Tim 58000H	Sp	41.3	4	Tr	151	4950	32x6	32x6D
Federal A6TW	2½	2360	Con 16 C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	DR	Own	C	4	Tim 65001H	Wo	42.0	4	Tr	151	4950	32x6	32x6D
*Federal DSW	2½-3	1050	Con W 10	4	3⅞x4¼	24.0	Pb	Zen	P	DR	W-G T9	U	4	Cla B-374	Sp	40.8	6	Tr	158	3800	6.00x20	32x6
Federal T10B	2½-3	2740	Con 16 R	6	4 x4⅛	38.4	Pb	Zen	P	DR	Own	C	4	Tim 58200H	Sp	36.3	4	Tr	165	6550	34x7	34x7D
Federal T10W	2½-3	2915	Con 16 R	6	4 x4⅛	38.4	Pb	Zen	P	DR	Own	C	4	Tim 65201H	Wo	44.0	4	Tr	165	6550	34x7	34x7D
Federal U6	3-3½	3860	Con 18 R	6	4 x4½	38.4	Pb	Str	P	DR	Br-L 55	C	7	Tim 65706HP	Wo	64.6	4	D	165	7220	34x7	34x7D
Federal 4C6A	4-5	4735	Con 20 R	6	4⅛x4¾	40.8	Pb	Zen	P	DR	Br-L 55	C	7	Tim 66704HP	Wo	73.6	4	D	192	8330	36x8	36x8D
Federal 4C6AB	4-5	4960	Con 20 R	6	4⅛x4¾	40.8	Pb	Zen	P	DR	Br-L 55	C	7	Tim 66704TWP	Wo	73.6	4	D	192	8850	36x8	36x8D
*Federal U6SW	6	6000	Con 20 R	6	4⅛x4¾	40.8	Pb	Zen	P	DR	Br-L 55	C	7	Tim SW 200	Wo	71.3	6	Tr	201	9850	34x7	34x7D
*Federal U6SWAB	6	6500	Con 20 R	6	4⅛x4¾	40.8	Pb	Zen	P	DR	Br-L 55	C	7	Tim SW 200	Wo	71.3	6	Tr	201	9900	34x7	34x7D
Federal X8	7½	5085	Con B 7	4	5 x6	40	Pw	Zen	Vac	AB	Br-L 60	C	7	Tim 68700DP	Wo	110.9	R	D	162	9750	36x6S	40x14S
Federal X8R	7½	5810	Con 21 R	6	4⅜x4¾	45.9	Pb	Zen	P	DR	Br-L 60	C	7	Tim 68700DP	Wo	110.9	R	D	162	10000	40x8	40x8D
*Federal 4C6SW	8	7500	Con 21 R	6	4⅜x4¾	45.9	Pb	Zen	P	DR	Br-L 55	C	7	Tim SW 300	Wo	80.8	6	Tr	231	11500	36x8	36x8D
Ford AA	1½	510	Own	4	3⅞x4¼	24.0	Sp	Zen	Gra	Own	Own	U	4	Own	St	42.24	4	R	131½	2723	6.00x20	32x6
Ford AA	1½	535	Own	4	3⅞x4¼	24.0	Sp	Zen	Gra	Own	Own	U	4	Own	St	42.24	4	R	157	3161	6.00x20	6.00x20
F. W. D.—H	1½	3300	Wis S U	4	4 x5	25.6	Pb	Zen	Vac	Eis	Cotta	C	4	Own	St	38.1	4	R	121	5300	34x7	34x7
F. W. D.—H6	2	3425	Wak	6	3¾x4½	29.4	Pb	Zen	Vac	Eis	Br-L	U	4	Own	St	35.0	4	R	133	5500	34x7	34x7
F. W. D.—BTL4	2	3900	Wis S U	4	4 x5	25.6	Pb	Zen	Vac	Eis	Br-L	C	7	Own	St	84.7	4	R	120	6000	36x8	36x8
F. W. D.—HH6	2½	4000	Wak	6	3¾x4½	33.7	Pb	Zen	Vac	Eis	Br-L	C	7	Own	St	101 0	4	R	133	5700	36x8	36x8
F. W. D.—B	3	4200	Own	4	4¾x5½	36.1	Pb	Str	Gra	Eis	Own	C	3	Own	St	35.6	4	R	124	6460	36x6S	36x6S
F. W. D.—B 5	3	4525	Own	4	4¾x5½	36.1	Pb	Str	Gra	Eis	Own	C	5	Own	St	88.6	4	R	132	6800	36x6S	36x6S
F. W. D.—B T	3	4742	Own	4	4¾x5½	36.1	Pb	Str	Vac	Eis	Own	C	5	Own	St	101.0	4	R	133¾	7700	40x7S	40x5SD
F. W. D.—U 4	3	4575	Own	4	4¾x5½	36.1	Pb	Str	Vac	Eis	Own	C	5	Own	St	88.6	4	R	148	7000	36x6S	36x6S

MAJOR SPECIFICATIONS AND MECHANICAL DETAILS OF

Make and Model	Capacity—Tons	Chassis Price	Engine	No. of Cyl.	Bore Stroke	Tax H. P.	Oil System	Carburetor	Fuel Feed	Ignit. System	Gear Set	Location	No. Spds. For.	Rear Axle	Final Drive	Reduction in Low	Brakes, Foot	Brakes, Hand	Standard Wheel Base	Chassis Weight	Standard Tire Sizes Front	Rear
F. W. D.—C U 6	3½	5120	Wak	6	4 x4¾	38.6	Pb	Zen	Vac	Eis	Own	C	5	Own	St	38.6	4	R	148	7200	36x6S	36x8S
*F. W. D.—X 6	6	6500	Wak	6	4¼x4¾	43.3	Pb	Zen	Vac	Eis	Own	C	5	Own	St	38.6	*	4	170	9500	36x8	36x8
Garford Series S 11	2	2030	Bud H S 6	6	3⅜x4½	27.3	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.2	4	D	162	4500	32x6	D32x6
Garford Series 40	2	3240	Bud D S 6	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	D	168	4900	36x6	D36x6
Garford Series 40	2½	3240	Bud D S 6	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	D	168	5100	36x6	D36x6
Garford Series 60	2½	4580	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Ful	U	5	Tim	Wo	63.0	4	D	175	7000	36x6	D36x6
Garford Series 60	3	4680	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Ful	U	5	Tim	Wo	63.0	4	D	175	7100	36x6	D36x7
Garford Series 80	3½	5250	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	4	D	175	8200	S36x6	S36x12
Garford Series 80	4	5330	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	4	D	175	8400	S36x6	S36x14
Garford Series 100	5	5830	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	95.0	4	D	175	9600	S36x6	S40x14
Gen. Mot. T11-1001	*3800	625	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Own	U	3	Pontiac	Sp	14.7	4	4	109⅝	1980	5.00x19B	5.50x19B
Gen. Mot. T15-1501	*5400	695	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Own	U	3	Tim 51500	Sp	16.14	4	4	130	2625	5.50x20B	5.50x20B
Gen. Mot. T17-1701	*5500	735	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Own	U	3	Tim 51505	Sp	16.04	4	4	130	2650	6.50x20B	6.50x20B
Gen. Mot. T17-1707	*6500	750	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Own	U	3	Tim 51505	Sp	16.04	4	4	130	2670	5.50x20B	32x6
Gen. Mot. T19-2201	*6300	895	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Mun	U	4	Tim 5261	Sp	34.45	4	D	130	2850	5.50x20B	32x6
Gen. Mot. T19-2214	*8500	995	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Mun	U	4	Tim 5261	Sp	34.45	4	D	130	2925	30x5	30x5D
Gen. Mot. T25-2501	*6800	1235	Buick	6	3⅞x4⅝	28.3	Pb	Mar	P	DR	Mun	U	4	Tim 5261	Sp	29.62	4	D	130	3375	6.00x20B	7.50x20B
Gen. Mot. T25-2509	*8500	1300	Buick	6	3⅞x4⅝	28.3	Pb	Mar	P	DR	Mun	U	4	Tim 5261	Sp	29.62	4	D	130	3425	30x5	30x5D
Gen. Mot. T30-3206	*9000	1555	Buick	6	3⅞x4⅝	28.3	Pb	Mar	P	DR	Mun	U	4	Eat 1617	Sp	28.6	4	D	141	4450	6.00x20B	8.25x20B
Gen. Mot. T30-3203	*11000	1605	Buick	6	3⅞x4⅝	28.3	Pb	Mar	P	DR	Mun	U	4	Eat 1617	Sp	28.6	4	D	141	4525	32x6	32x6D
Gen. Mot. T42-4206	*10600	1735	Buick	6	3⅞x4⅝	28.3	Pb	Mar	P	DR	Mun	U	4	Eat 1717	Sp	33.38	4	D	141	4575	7.00x20B	9.00x20B
Gen. Mot. T42-4203	*14000	1960	Buick	6	3⅞x4⅝	28.3	Pb	Mar	P	DR	Mun	U	4	Eat 1717	Sp	33.38	4	D	141	4905	36x6	36x6D
Gen. Mot. T44-4401	*12000	1965	Buick	6	3⅞x4⅝	28.3	Pb	Mar	P	DR	Mun	U	4	Eat T44DR	2R	40.89	4	D	141	4825	32x6	32x6D
Gen. Mot. T44-4404	*15000	2095	Buick	6	3⅞x4⅝	28.3	Pb	Mar	P	DR	Mun	U	4	Eat T44DR	2R	40.89	4	D	141	5095	34x7	34x7D
Gen. Mot. T60-6202	*16500	3035	Buick	6	3¾x5	33.7	Pb	Mar	P	DR	Mun	U	4	Tim 65706	Wo	52.53	4	D	154¼	6925	34x7	34x7D
Gen. Mot. T60-6205	*18500	3150	Buick	6	3¾x5	33.7	Pb	Mar	P	DR	Mun	U	4	Tim 65706	Wo	52.53	4	D	154¼	6925	9.00x20B	9.00x20DB
Gen. Mot. T82-8202	*19000	3795	Buick	6	3¾x5	33.7	Pb	Mar	P	DR	Br-L	C	5	Tim 66704	Wo	82.2	4	D	155	7500	9.00x20B	9.00x20DB
Gen. Mot. T82-8207	*22000	4070	Buick	6	3¾x5	33.7	Pb	Mar	P	DR	Br-L	C	5	Tim 66704	Wo	82.2	4	D	155	7850	38x7	38x9D
Gen. Mot. T90-9001	*23000	5835	Buick	6	3¾x5	33.7	Pb	Mar	P	DR	Br-L	C	5	Tim SW-200	Wo	76.04	WR	D	185¼	9400	7.50x20B	7.50x20D
Gen. Mot. T90-9004	*28000	6055	Buick	6	3¾x5	33.7	Pb	Mar	P	DR	Br-L	C	5	Tim SW-200	Wo	76.04	WR	D	185¼	9775	8.25x20B	8.25x20DB
*Gramm B	1¾	1495	Lyc 4 SL	6	3¼x4½	25.3	Pb	Zen	Vac	Aut	Cov	U	4	Tim	Sp	34.3	4	Tr	140	3800	6.50x20	6.50x20D
*Gramm C	2	1795	Lyc ASA	6	3⅝x4½	31.54	Pb	Zen	P	Aut	Cov	U	4	Tim	Sp	31	4	Tr	160	4820	7.00x20	7.00x20D
*Gramm D	2½	2195	Lyc TS	6	3⅞x5	36	Pb	Zen	P	Aut	Cov	U	4	Tim	Sp	33	4	Tr	160	5100	7.50x20	7.50x20D
*Gramm E	3	2595	Lyc TS	6	3⅞x5	36	Pb	Zen	P	Aut	Ful	U	4	Tim	Sp	35	4	Tr	160	5300	8.25x20	8.25x20D
*Gramm EY	3	3595	Con 20 R	6	4¼x4¾	40.80	Pb	Zen	P	Aut	Ful	U	4	Tim	Sp	30	4	D	190	6750	32x6	32x6D
*Gramm T-38	3	3595	Lyc TS	6	3⅞x5	36	Pb	Zen	P	Aut	Ful	U	4	Wis	2R	45	D	R	153	7200	36x5S	36x10S
*Gramm O-45	4	3995	Lyc TS	6	3⅞x5	36	Pb	Zen	P	Aut	Ful	C	8	Wis	2R	75.8	D	R	153	7700	36x5S	36x12S
*Gramm GY	4	4345	Con 21 R	6	4¾x4¾	45.9	Pb	Zen	P	Aut	Ful	U	4	Wis	2R	28	4	D	210	7200	34x7	34x7D
*Gramm O-60	5	4745	Lyc TS	6	3⅞x5	36	Pb	Zen	P	Aut	Ful	C	8	Wis	2R	78.4	D	R	153	8800	36x6S	36x14S
*Gramm HY	5	6545	Con 16 H	6	4⅜x5¾	54.15	Pb	Zen	P	Aut	Ful	U	4	Wis	2R	25.2	4	D	236	9600	36x8	36x8D
Indiana 64	1	1195	Con	6	3⅜x4⅝	27.3	Pb	Str	Vac	Aut	Br-L	U	3	Col	Sp	21.3	4	Tr	137	3435	30x5	30x5
Indiana 74	1¼	1290	Con	6	3⅜x4⅝	27.3	Pb	Str	Vac	Aut	Br-L	U	4	Col	Sp	25.6	4	Tr	137	3450	32x6	32x6
Indiana 11	1¼	1425	Her	4	4 x5	25.6	Pb	Str	Gra	Aut	Br-L	U	3	Cla	Sp	24.48	R	R	129½	3500	30x5	30x5
Indiana 89	1½	1525	Con	6	3⅜x4⅝	27.3	Pb	Str	Vac	Aut	Br-L	U	4	Col	Sp	25.6	4	Tr	149	3650	32x6	32x6
Indiana 111	1½	1630	Her	4	4 x5	25.6	Pb	Str	Gra	Aut	Br-L	U	3	Cla	Sp	26.4	R	R	129½	360^	30x5	32x6
Indiana 111 XW	2	1850	Her	4	4 x5	25.6	Pb	Str	Vac	Eis	Br-L	U	4	Wis	2R	30.14	R	Tr	120	3740	32x6	32x6D
Indiana 120	2	1990	Con	6	4 x4⅛	38.4	Pb	Str	P	Aut	Br-L	U	4	Tim	Sp	—	4	Tr	156	5200	32x6	32x6D
Indiana 140	2	2495	Con	6	4 x4⅛	38.4	Pb	Str	P	Aut	Br-L	U	4	Wis	2R	—	4V	Tr	156	5500	32x6	32x6D
Indiana 115 A	2½	2740	Her	4	4¼x5	28.9	Pb	Str	Vac	Eis	Br-L	U	4	Cla	Sp	42.99	R	Tr	132	4970	32x6	34x7D
Indiana 170	2½	3160	Con	6	4⅛x4¾	40.8	Pb	Str	P	Aut	Br-L	U	4	Wis	2R	—	4HV	D	170	6800	32x6	32x6D
Indiana 127 AW	3	3775	Her	4	4¼x5	28.90	Pb	Str	Vac	Eis	Br-L	U	5	Wis	2R	41.72	RV	D	158¼	7000	34x7	34x7D
Indiana 627 AW	3	4075	Wis	6	4 x5	38.40	Pb	Str	Vac	Eis	Br-L	U	5	Wis	2R	41.72	RV	D	156¼	7200	34x7	34x7D
Indiana 195	3	3820	Con	6	4⅛x4¾	40.8	Pb	Str	P	Aut	Br-L	U	4	Wis	2R	—	4HV	D	170	7500	34x7	34x7D
Indiana 190	3	4185	Con	6	4⅛x4¾	40.8	Pb	Str	P	Aut	Br-L	C	7	Tim	Wo	—	RV	D	168½	7625	34x7	34x7D
Indiana 220	3½	4560	Con	6	4⅜x4¾	45.9	Pb	Str	P	Aut	Br-L	U	4	Wis	2R	—	4HV	D	170	8200	36x8	36x8D
Indiana 250	5	5950	Con	6	4⅜x4¾	45.9	Pb	Str	P	Aut	Br-L	U	4	Tim	Wo	—	4HMV	D	182	10000	40x8	40x8D
Indiana 290	7	7250	Con	6	4¾x5¾	54.15	Pb	Str	P	L-N	Br-L	C	7	Tim	Wo	—	4W	D	182	10750	38x7	40x14S
Indiana 640	10	9700	Con	6	4¾x5¾	54.15	Pb	Str	P	L-N	Br-L	C	7	Tim	Wo	—	4RW	D	212	14000	38x7	38x10S
International AW-1	¾	720	Wak X A	4	3½x4½	19.6	Pb	Zen	Vac	DR	Mec	U	3	Eat 517	Sp	17.4	4	2	136	2620	5.25x20	5.25x20
Int. Harvester Sp. Del.	¾	720	Wak X A	4	3½x4½	19.6	Pb	Zen	Vac	DR	Mec	U	3	Eat 502 R	Sp	15.1	4	2	124	2200	30x5.25	30x5.25
Int. Harv. 6 Spd. Spec.	1	820	Wak X A	4	3½x4½	19.6	Pb	Zen	Vac	DR	Mec	U	3	Eat 1124	Sp	52.6	4	2	124	2430	30x5	30x5
Int. Harvester S-24	1¼	1160	Lyc C T	4	3¾x5	22.5	Pw	Zen	Vac	DR	Own	U	3	Eat 1002	Sp	21.3	4	2	130	3200	30x5	30x5
Int. Harvester S-26	1¼	1310	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	DR	Own	U	3	Eat 1002	Sp	21.3	4	2	130	3250	30x5	30x5
Int. Harvester SF-34	1½	1450	Lyc C T	4	3¾x5	22.5	Pw	Zen	Vac	DR	Own	U	3	Eat 1502	Sp	22.6	4	2	140	3520	30x5	32x6
International AL-3	1½	1450	Lyc SLH	6	3¼x4½	25.3	Pb	Zen	Vac	DR	W-G	U	4	Eat 1518	Sp	42.9	4	2	138	4300	6.00x20	6.00x20D
Int. Harvester SF-36	1½	1600	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	DR	Own	U	3	Eat 1502	Sp	22.6	4	2	140	3570	30x5	32x6
Int. Harvester SD-44	2	1590	Lyc C T	4	3¾x5	22.5	Pw	Zen	Vac	AB	Own	U	4	Eat 2002	Sp	40.6	4	2	117	3700	30x5	32x6
Int. Harvester SD-46	2	1740	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	AB	Own	U	4	Eat 2002	Sp	40.6	4	2	117	3750	30x5	32x6
Int. Harvester SF-46	2	1950	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	DR	Own	U	4	Eat 2002	Sp	40.6	4	2	140	4000	32x6	32x6D
Int. Harvester A-4	2	1985	Own-FBB	6	3⅝x4½	31.5	Pb	Zen	Vac	DR	Own	U	5	Eat 1712	Sp	47.8	4	2	145	5070	32x6	32x6D
Int. Harvester HS-54	2½	3850	Hall-S 151	4	4¼x5½	28.9	Pb	Zen	Vac	RB	Own	U	5	Eat 54	2R	60.5	4	4	148	8000	36x5S	36x8S
Int. Harvester HS-54-C	2½	3850	Hall-S 151	4	4¼x5½	28.9	Pb	Zen	Vac	RB	Own	U	5	Own A M 428	Ch	63.8	4	4	148	8665	36x5S	36x10S
Int. Harvester W-1	2½	3850	Hall-S 151	4	4¼x5½	28.9	Pb	Zen	Vac	RB	Own	U	5	Eat 58	2R	60.5	4	2	148	8300	36x5S	36x8S
Int. Harvester A-5	3	2550	Own-FBB	6	3⅝x4½	31.5	Pb	Zen	Vac	DR	Own	U	5	Eat 2112	Sp	52.6	4	2	156	5606	34x7	34x7D
Int. Harvester HS-74	3½	4850	Hall-S 152	4	4¾x5½	36.1	Pb	Zen	Vac	RB	Own	U	5	Eat 74	2R	70.5	4	4	160	10700	36x5S	40x12S
Int. Harvester HS-74-C	3½	4850	Hall-S 152	4	4¾x5½	36.1	Pb	Zen	Vac	RB	Own	U	5	Own A M 427	Ch	79.1	4	4	160	11000	36x6S	40x12S
Int. Harv's'r HS-104-C	5	5500	Hall-S 152	4	4⅝x5½	36.1	Pb	Zen	Vac	RB	Own	U	5	Own A M 427	Ch	90.5	4	4	160	11095	36x6S	40x14S
La France-Repub. A-1	*6000	795	Lyc	6	2⅞x4¾	19.8	Pb	Zen	Vac	Aut	Ful	U	4	Tim	Sp	36.1	4	Tr	132	3000	5.50x20	32x6
La France-Repub. C-1	*7000	1295	Lyc	6	3¼x4½	25.4	Pb	Zen	Vac	Aut	Ful	U	4	Tim	Sp	29.1	4	Tr	144	3300	6.00x20	32x6
La France-Repub. D-1	*9000	1595	Lyc	6	3¼x4½	25.4	Pb	Zen	Vac	Aut	Ful	U	4	Tim	Sp	37.9	4	Tr	144	3725	30x5	30x5D
La France-Repub. F-2	*13000	2395	Lyc	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Ful	U	4	Tim	Sp	40.1	4	D	174	5400	32x6	32x6D
La France-Repub. H-1	*15000	2985	Lyc	6	3⅞x5	36.0	Pb	Zen	Vac	Aut	Ful	U	4	Eat	Sp	36.0	4	D	163	5850	34x7	34x7D
La France-Repub. L-1	*18000	3595	Lyc	6	3⅞x5	36.0	Pb	Zen	Vac	Aut	Ful	U	4	Eat	2R	48.0	4	D	180	6900	36x8	36x8D
La France-Repub. M-1	*20000	3880	Wak	6	4 x4¾	38.4	Pb	Zen	Vac	Aut	Ful	U	5	Eat	2R	62.3	R	D	171	6900	36x8	36x8D
Mack BL	1	2500	Own	6	3¼x5	25.39	Pw	Str	Vac	NE	Own	U	4	Own	Sp	Opt	4	D	143	——	B6.00x20	DB6.00x20
†Mack BG	1½	3000	Own	6	3⅝x5	31.57	Pw	Str	Vac	NE	Own	U	4	Own	Sp	Opt	4	D	138-156	——	32x6	D32x6
Mack AB	2½-3	3950	Own	4	4¼x5	28.9	Pb	Str	Gra	RB	Own	U	4	Own	2R	Opt	R	D	2-Opt	——	36x4S	36x8S
†Mack AB	2½-3	3500	Own	4	4¼x5	28.9	Pb	Str	Gra	RB	Own	U	4	Own	Ch	Opt	R	D	2-Opt	——	36x4S	36x8S
Mack AB	2½-3	4750	Own	6	3⅝x5	31.57	Pw	Str	Vac	NE	Own	U	4	Own	2R	Opt	R	D	2-Opt	——	34x7	D34x7
†Mack AB	2½-3	4300	Own	6	3⅝x5	31.57	Pw	Str	Vac	NE	Own	U	4	Own	Ch	Opt	R	D	2-Opt	——	34x7	D34x7
†Mack B	3-4	5250	Own	6	4 x5½	38.4	Pb	Str	Vac	NE	Own	U	4	Own	2R	Opt	4	D	2-Opt	——	36x8	D36x8
†Mack BC	3½-5	5500	Own	6	4 x5½	38.4	Pb	Str	Vac	NE	Own	U	4	Own	Ch	Opt	4	D	2-Opt		36x8	36x8D
†Mack BJ	3½-5	6150	Own	6	4½x5½	48.6	Pb	Str	Vac	NE	Own	C	4	Own	2R	Opt	4	D	3-Opt	——	36x8	36x8D
†Mack AK	3½-5	5150	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	4	J	3-Opt	——	36x5S	36x5DS
†Mack AK	3½-5	5250	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	C	4	Own	2R	Opt	4	D	3-Opt	——	36x5S	36x5DS
†Mack AC	3½-5	4950	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	J	R	3-Opt	——	36x5S	40x10S
†Mack AC	5½-7	5509	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	J	R	3-Opt	——	36x6S	40x12S
†Mack AC	7½	6000	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	J	R	3-Opt	——	36 7S	40x14S
†Mack AP	7½	9500	Own	6	5 x6	60.0	Pb	Str	Gra	NE	Own	J	4	Own	Ch	Opt	R	J	191	——	36x7S	40x8DS
†Mack A C 6-wheel	10	7500	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	4R	J	3-Opt	——	36x7S	40x12S
†Mack AP 6-wheel	10	12000	Own	6	5 x6	60.0	Pb	Str	Gra	NE	Own	J	4	Own	Ch	Opt	4R	J	3-Opt	——	36x7	40x12S
Paige	¾	860	Own	6	3¼x4½	25.35	Pb	DL	P	DR	W-G	U	3	Sal	Sp	17.36	4	Tr	115	2465	B5.50x19	B5.50x19
Relay Series 40	2	3240	Bud D S 6	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Br-L	U	4	Own	R	34.5	4	D	168	5500	36x6	D36x6
Relay Series 50	2	3860	Bud D W 6	6	3¾x5	33.7	Pb	Zen	Vac	Aut	Br-L	U	5	Own	R	58.5	4	D	161	6800	36x6	D36x6
Relay Series 40	2½	3240	Bud D S 6	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Br-L	U	4	Own	R	34.5	4	D	168	5700	36x6	D36x6
Relay Series 50	2½	4000	Bud D W 6	6	3¾x5	33.7	Pb	Zen	Vac	Aut	Br-L	U	5	Own	R	58.5	4	D	161	7000	36x6	D38x7
Relay Series 60	2½	4555	Bud B A 6	6	4 x5⅛	40.8	Pb	Zen	Vac	Aut	Ful	U	5	Own	R	63.7	4	D	175	7350	36x6	D36x6
Relay Series 50	3	4130	Bud D W 6	6	3¾x5	33.7	Pb	Zen	Vac	Aut	Br-L	U	5	Own	R	58.5	4	D	161	7200	36x6	D40x8
Relay Series 60	3	4595	Bud B A 6	6	4 x5⅛	40.8	Pb	Zen	Vac	Aut	Ful	U	5	Own	R	63.7	4	D	175	7500	36x6	D38x7
Relay Series 80	3	5330	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	U	8	Own	R	84.18	4	D	175	8400	36x6	S40x10
Relay Series 60	3½	4745	Bud B A 6	6	4 x5⅛	40.8	Pb	Zen	Vac	Aut	Ful	U	5	Own	R	58.5	4	D	175	7800	38x7	D40x8
Relay Series 80	3½	5339	Bud B A	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Cov	C	8	Own	R	84.18	4	D	175	8600	36x6	S40x12

1930 COMMERCIAL CARS BUILT IN THE UNITED STATES

Make and Model	Capacity—Tons	Chassis Price	Engine	No. of Cyl.	Bore and Stroke	Tax H. P.	Oil System	Carburetor	Fuel Feed	Ignit. System	Gear Set	Location	No. Spds. For.	Rear Axle	Final Drive	Reduction in Low	Brakes, Foot	Brakes, Hand	Standard Wheel Base	Chassis Weight	Standard Tire Sizes Front	Rear
Relay Series 80	4	5380	Bud B A	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Cov	C	8	Own	R	84.18	4	D	175	8800	38x7	S40x14
Relay Series 100	5	6615	Con 21 R	6	4⅜x4¾	45.9	Pb	Str	Vac	Aut	Ful	U	5	Own	R	63.7	4	D	230	10000	9.00x24	D9.75x24
Reo D F 129	½	1095	Own	6	3⅜x5	27.3	Pb	Sch	P	DR	Own	U	3	Own	Sp	17.1	4	Tr	129	——	6.00x20	32x6
Reo 15 Junior	½	785	Con 19 E	6	3⅜x4	27.3	Pb	Sch	P	DR	W-G	U	3	Sal	Sp	14.63	4	Tr	115	2290	6.00x18	6.00x18
Reo D F	1	1095	Own C B	6	3⅜x5	27.3	Pb	Sch	P	DR	Own	U	3	Own	Sp	17.1	4	Tr	135	3200	6.00x20	32x6
Reo F A	1½	1295	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	34.32	4	Tr	137	3525	6.00x20	32x6
Reo F E	1½	1395	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	34.32	4	Tr	152	3700	6.00x20	32x6
Reo F F	1½	1395	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	34.32	4	Tr	156	3750	6.00x20	32x6
Reo F H	2	1595	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	37.6	4	Tr	142	4165	32x6	32x6D
Reo F C	2	1645	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	37.62	4	Tr	152	4025	32x6	32x6D
Reo F D	2	1745	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	37.62	4	Tr	168	4075	32x6	32x6D
Reo G A	3	2035	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	41.05	4	Tr	163	4625	32x6	32x6D
Reo G C	3	2140	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	41.05	4	Tr	179	4850	32x6	32x6D
Reo G D	3	2085	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	78.1	4	Tr	144	4570	32x6	32x6D
Reo G C S	3	2375	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	41.05	4	Tr	210	5320	32x6	32x6D
Rugby T	½	655	Con	6	3¼x4	25.4	Pb	Str	P	Aut	Own	U	3	Own	Sp	15.6	4	4	——	2160	29x5	29x5
Rugby 6-15	1	865	Con	6	3¼x4	25.4	Pb	Str	P	Aut	Br-L	U	4	Sal	Sp	34.49	4	Tr	135	2900	20x5.50	32x6
Rugby 615	1½	930	Con	6	3¼x4	25.4	Pb	Str	P	Aut	Br-L	U	4	Sal	Sp	34.49	4	Tr	135	3000	5.50x20	30x5D
Selden 7 C	1	1098	Con	6	2⅞x4¾	19.84	Pb	Zen	Vac	Aut	Br-L	U	3	Tim	Sp	—	4	D	124	3600	30x5	30x5
Selden 17 C	1½	1500	Con	6	3⅜x4	27.3	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	—	4	D	142	3000	32x6	32x6
Selden 317 C	1½	1610	Con	6	3⅜x4⅝	27.34	Pb	Str	Vac	Aut	Br-L	U	4	Tim	Sp	—	4	D	142	3900	32x6	32x6
Selden 37 C	2	1935	Con	6	3⅜x4⅝	27.34	Pb	Str	Vac	Aut	Br-L	U	4	Tim	Sp	—	4	D	151	4800	32x6	32x6D
Selden 39 C	2½	2920	Con	6	4 x4⅛	38.4	Pb	Str	Vac	Aut	Br-L	U	4	Tim	Sp	—	4	D	164	5800	32x6	32x6D
Selden 47 C B	3½	3785	Con	6	4 x4½	38.4	Pb	Str	Vac	Aut	Br-L	U	4	Tim	Sp	—	4	D	171	7200	34x7	34x7D
Selden 47 C D	4	4435	Con	6	4 x4½	38.4	Pb	Str	Vac	Aut	Br-L	U	5	Wis	2R	—	4	D	171	7600	36x8	36x8D
Selden 67 C	5	4975	Con	6	4⅜x4¾	45.94	Pb	Str	Vac	Aut	Br-L	C	7	Wis	2R	—	4	D	171	8700	36x8	36x8D
Selden 77	7	7365	Con	6	4¾x5¾	54.15	Pb	Str	Vac	Aut	Br-L	C	7	Wis	2R	—	4	D	178	12000	36x7	40x7D
Service Series S 11	2	2030	Bud H S 6	6	3⅜x4½	27.3	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.2	4	D	162	4500	32x6	D32x6
Service Series 40	2	3240	Bud D S 6	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	D	168	4900	36x6	D36x6
Service Series 40	2½	3240	Bud D S 6	6	3⅝x5	31.5	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Wo	34.8	4	D	168	5100	36x6	D36x6
Service Series 60	2½	4580	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Ful	U	5	Tim	Wo	63.0	4	D	175	7000	36x6	36x6
Service Series 60	3	4680	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Ful	U	5	Tim	Wo	63.0	4	D	175	7100	36x6	D38x7
Service Series 80	3½	5250	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	4	D	175	8200	S36x6	S36x12
Service Series 80	4	5330	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	98.2	4	D	175	8400	S36x6	S36x14
Service Series 100	5	5830	Bud B A 6	6	4⅛x5⅛	40.8	Pb	Zen	Vac	Aut	Br-L	C	7	Tim	Wo	96.0	4	D	175	9600	S36x6	S40x14
Stewart 30	1	695	Lyc AFE	4	3¾x4½	22.5	Pb	Str	Vac	DR	W-G	U	4	Sal	Sp	35.1	4	D	130	2905	6.50x20	6.50x20
Stewart 30 X	1	795	Lyc WRG	6	2⅞x4¾	19.8	Pb	Str	Vac	DR	W-G	U	4	Sal	Sp	35.1	4	D	130	2965	6.50x20	6.50x20
Stewart 40	1½	895	Lyc AFE	4	3¾x4½	22.5	P	Str	Vac	DR	W-G	U	4	Cla	Sp	35.1	4	D	130	3215	6.50x20	6.50x20D
Stewart 40X	1½	995	Lyc WTG	6	3 x4½	23.8	Pb	Str	Vac	DR	W-G	U	4	Sal	Sp	35.1	4	D	130	3250	6.50x20	6.50x20D
Stewart 34 X	1½	1195	Lyc 4 SL	6	3¼x4½	25.3	Pb	Str	Vac	DR	W-G	U	4	Cla	Sp	35.1	4	D	145	3526	6.50x20	6.50x20
Stewart 28 X	1¾	1495	Lyc 4 SL	6	3¼x4½	25.3	Pb	Str	Vac	DR	Ful	U	4	Cla	Sp	44.1	4	D	136	3958	6.50x20	6.50x20
Stewart 29XS	2	1695	Lyc ASA	6	3⅜x4½	25.3	Pb	Str	P	DR	Ful	U	4	Cla	Sp	44.1	4	D	145	4450	32x6	32x6D
Stewart 26 XW	2	2290	Lyc TF	6	3⅝x5	31.5	Pw	Str	Vac	DR	Ful	U	4	Tim	Wo	48.1	4	D	165	5095	32x6	32x6D
*Stewart 18 X	2½	2690	Lyc TF	6	3⅝x5	31.5	Pw	Str	Vac	DR	Ful	U	4	Tim	Wo	48.1	4	D	165	5788	32x6	32x6D
Stewart 32 X	2½	1990	Lyc ASA	6	3⅝x4½	31.54	Pw	Str	Vac	DR	Ful	U	4	Cla	Sp	46.1	4	D	165	5100	32x6	32x6D
Stewart 35 X	3	2590	Lyc AFD	6	3¾x4½	33.8	Pw	Str	P	DR	Ful	U	4	Cla	Sp	46.1	4	DR	165	5800	8.25x20B	8.25x20D
Stewart 33 X	3	3290	Lyc TS	6	3⅞x	36.2	Pw	Str	Vac	DR	Ful	U	4	Tim	Wo	105.1	4	D	165	6450	34x7	34x7D
Stewart 19 X	3½	3690	Lyc TS	6	3⅞x5	36.2	Pw	Str	Vac	DR	Ful	C	12	Tim	Wo	105.1	4	D	165	7010	36x5	36x10
Stewart 31 X	5	4990	Wak 6 RSL	6	4⅜x5⅛	45.9	Pw	Str	Vac	DR	Ful	C	8	Tim	Wo	82.1	4	D	165	8400	36x6S	36x6SD
Stewart 27 X	6-7	5700	Wak 6 RSL	6	4⅜x5⅛	45.99	Pw	Str	Vac	DR	Ful	U	8	Tim	Wo	93.81	4	D	165	9927	36x7	40x7D
Studebaker GN-P	¾	845	Own	6	3⅜x4⅛	27.3	Pb	Str	P	DR	Own	U	3	Own	Sp	15.15	4	‡4	115	2465	6.00x19	6.00x10
Studebaker GN-S	1	1045	Own	6	3⅜x4⅛	27.3	Pb	Str	P	DR	Own	U	3	Own	Sp	13.8	4	D	130	2990	6.00x20	30x5
Studebaker GK-N	1	1095	Own	6	3⅜x4⅛	27.3	Pb	Str	P	DR	Own	U	3	Own	Sp	13.8	4	D	146	3000	30x5	30x5
Studebaker S-20	1½	695	Own	6	3¼x4⅛	25.4	Pb	Str	P	DR	W-G	U	4	Tim	Sp	36.2	4	4	130	3000	6.00x20	32x6
Studebaker S-30	1½	775	Own	6	3¼x4⅛	25.4	Pb	Str	P	DR	W-G	U	4	Tim	Sp	36.2	4	4	160		6.00x20	32x6
Studebaker S-50	2	895	Own	6	3¼x4⅛	25.4	Pb	Str	P	DR	W-G	U	4	Tim	Sp	37.4	4	4	148		6.50x20	6.50x20D
Studebaker S-60	2	945	Own	6	3¼x4⅛	25.4	Pb	Str	P	DR	W-G	U	4	Tim	Sp	37.4	4	4	160		6.50x20	6.50x20D
Studebaker GN-N	*4000	1245	Own	6	3⅜x4⅛	27.3	Pb	Str	P	DR	Cla	U	4	Cla	Sp	33.5	4	D	146	3265	30x5	32x6
Studebaker 77	*12500	2895	Own	8	3½x4¾	39.2	Pb	Str	P	DR	Ful	U	4	Eat	Sp	24.6	4V	D	158	5030	7.00x20	7.00x20D
Studebaker 88	*12500	3295	Own	8	3½x4¾	39.2	Pb	Str	P	DR	Ful	U	4	Eat	Sp	24.6	4V	D	184	5200	7.50x20	7.50x20D
Studebaker 99	*14000	3795	Own	8	3½x4¾	39.2	Pb	Str	P	DR	Ful	U	4	Eat	Sp	24.6	4V	D	184	5680	7.50x20	7.50x20D
Whippet 96 A	½	360	Own 96 A	4	3⅛x4¾	15.6	Pb	Til	Vac	Aut	Own	U	3	Own	Sp	14.74	4	B	103¼	1665	4.75x19	4.75x19
White 15 B		1545	Own GKA	4	3¾x5⅛	22.5	CS	Zen	Vac	L-N	Own	C	4	Own	Sp	18.6	R	R	133½	3402	30x5	30x5
White 60		1850	Own 2 A	6	3½x4½	29.4	Pw	Zen	Vac	DR	Own	U	3	Own	Sp	17.9	4	D	138	3739	30x5	30x5
White 57		2725	Own GRC	4	4 x5¾	25.6	Pw	Zen	Vac	L-N	Own	U	4	Own	Sp	19.3	R	R	146	3935	32x6	32x6
White 20 A		2125	Own GKA	4	3¾x5⅛	22.5	CS	Zen	Vac	L-N	Own	C	4	Own	2R	32.1	R	R	145½	4572	34x5	34x5D
White 61		2450	Own 4 A	6	3¾x4½	33.75	Pw	Zen	Vac	DR	Own	U	4	Own	Sp	23.4	4	D	148	4789	30x5	30x5D
White 56		3125	Own GRC	4	4 x5¾	25.6	Pw	Zen	Vac	Mag	Own	U	4	Own	Sp	26.2	R	D	165	5276	36x4S	36x7S
White 51 A		3750	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	4	Own	Sp	35.6	R	D	170	6438	36x5S	36x8S
White 58		4400	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	4	Own	IG	49.7	D	R	170	6438	36x5S	36x9S
White 55		4650	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	4	Own	IG	66.1	D	R	174	8737	36x5S	40x5SD
White 52 T		4700	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	4	Own	IG	76.5	D	R	129½	8461	36x5S	40x5SD
White 52		5100	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	5	Own	IG	92.3	D	R	174	9409	36x6S	40x12S
White 59 A		6000	Own 3 A	6	4 x5¼	38.4	Pw	Zen	P	DR	Own	U	4	Own	Sp	66.5	D	R	155	9775	40x8	40x14S
White 63		5000	Own 3 A	6	4 x5¼	38.4	Pw	Zen	P	DR	Own	U	4	Own	Sp	41.4	4	D	168	8350	34x7DP	34x7DP
White 64		6300	Own 1 A	6	4⅜x5¾	45.94	Pw	Zen	P	LN	Own	U	4	Own	2R	46.8	4	D	180	9154	36x8P	36x8DP
Willys Six 98 B	½	525	Own 98 B	6	3¼x3⅞	25.35	Pb	Til	Vac	Aut	Own	U	3	Own	Sp	14.28	4	B	110	1904	5.50x19	5.00x19
Willys Six C-101	1½	695	Own 98 B	6	3¼x3⅞	25.35	Pb	Til	Vac	Aut	Own	U	4	Cla	Sp	42.33	4	B	131	2740	5.50x20	30x5
Willys-Knight T-103	1½	825	Own KGT	6	2⅞x4¾	20.7	Pb	Til	Vac	Aut	Cov	U	4	Cla	Sp	42.33	4	B	131	2848	5.50x20	30x5

GENERAL NOTATIONS

*†REFFERENCE MARKS apply to individual lines only and explanations are given under the subdivision for each company in the "SPECIAL NOTATIONS."

CAPACITIES given in this table are in tons or fractions of tons. *Shows maximum allowable gross weight in pounds.

WHEEL BASES given are standard, but optional wheel bases are available in many cases.

ENGINE—Bud, Buda; Con, Continental; Her, Hercules; Kgt, Knight; Lyc, Lycoming; Wak, Waukesha; Wis, Wisconsin; Hall, American Car & Foundry.

LUBRICATION—Pb, pressure lubrication to main and connecting rod bearings; Pw, full pressure lubrication to all main, connecting rod and camshaft bearings, including wrist pins; CS, circulating splash; Sp, splash.

CARBURETOR—Car, Carter; Mar, Marvel; Sch, Wheeler-Schebler; Str, Stromberg; DL, Detroit Lubricator; Til, Tillotson; Zen, Zenith-Detroit.

FUEL FEED—Gra, Gravity; Vac, Vacuum tank; P, Fuel pump

IGNITION — AB, American-Bosch; Aut, Electric Auto-Lite; Eis, Eisemann; L-N, Loece-Neville; N-E, North East; RB, Robert Bosch; DR, Delco-Remy; Mag, Magneto.

TRANSMISSION—Br. L, Brown-Lipe; Cov, Cevert; Ful, Fuller; Mec, Mechanics Machine; Mun, Muncie; W-G, Warner Gear; Cotta, Cotta Gear Company.

LOCATION—C, center, amid; U, in unit with engine; J, on jackshaft.

REAR AXLE—Cla, Clark Equipment; Col, Columbia; Eat, Eaton; Sal, Salisbury; Tim, Timken; Wis, Wisconsin.

FINAL DRIVE—IG, Internal gear; St, Straight bevel; Sp, Spiral bevel; We, Worm; 2R, Double reduction; Ch, Chain; R, Relay drive.

BRAKES—J, Jackshaft; R, Rear wheels; D, Drive shaft; 4, four-wheel; Tr, Transmission; V, Vacuum booster; W, Westinghouse air brake; B, Both front and rear wheels.

TIRES—B, Balloon; D, Dual; S, Solid; P, Pneumatic

SPECIAL NOTATIONS

AMERICAN-LA FRANCE

*Chief model also available as 2½-ton model, 34x7 tire, dual rear, weight 6,400. Price $3,900

Chieftain model also available as Dump Truck, 160-inch wheel base.

Balloon tires optional on Chief, Chieftain and Big Chief models.

AUSTIN

*Price announced in forthcoming issue.

AUTOCAR

*Engines in these models are located under the driver's seat.

DIAMOND T.

Myers Magazine oiling system for chassis optional equipment.

DURANT LINE

*Price includes panel body.

DODGE

Dodge Model F 36 A to D is available on 165-inch wheel base. Model F 41 A to E is available on 165-inch wheel base. Model F 41 A to E is available on 170-inch wheel base. Model F 62 A to E is available on 195-inch wheel base. F 40 A, F 60A, F 61 A, optional carburetor, Detroit-Lubricator.

F. W. D.

*Indicates six-wheel model. Special power take-off transmission, which provides 3 power take-offs which may be operated in any transmission speed, optional on all models.

*Foot brake on X6 is a Lockheed type, operating on all six wheels.

FEDERAL

*Six wheelers.

GRAMM

Series 6	Straight Rating	Add. Wheel Base	Pay Load Range
B	10,000	157-174	1¾ tons
C	11,000	145-196	2 tons
D	13,000	145-196	2½ tons
E	15,000	145-196	3 tons

GENERAL MOTORS TRUCK LINE

*Capacity indicated for each chassis is the recommended gross weight without exceeding rated capacity of tires. The tire size does not affect the straight rating for which chassis is guaranteed and each model is designed to operate satisfactorily under average conditions with loads giving a total gross weight (chassis, body, equipment and payload) equal to straight rating given below. The additional standard wheel base lengths, the number of additional tire types (tire combinations—each type carrying a recommended gross weight) and the ton range on a nominal pay-load basis for each model is given below.

Model	Straight Rating	Additional Wh. bases, ins.			Addit'l Tire Types	Pay'l'd Range
T-11	3800	None			None	½
T-15	5400	141			2	¾
T-17	6560	141			4	¾-1¼
T-19	8500	141		151	20	1-2
T-25	8500	141		152	15	1-1¾
T-30	11000	152		164	13	1½-2½
T-42	14000	152	164	181	10	2-3½
T-44	15000	152	164	181	10	2-4
T-60	18500	166¾	184½	200¼	15	2½-4½
T-82	22000	167½	185¼	201	10	3-6
T-90	28000	201		220	5	5-7½

Optional rear axle ratios are available for all models.

MACK LINE

Other wheel bases furnished on all truck models.

On 6-wheel jobs, 4 rear wheels driven by chains, foot brake on 4 rear wheels.

HYP—Hypoid drive, single reduction.

††Made also in tractor models.

REO LINE

Model F A also available in 129-inch wheel base.

RUGBY

F—Chassis weight includes body.

STEWART LINE

Model 30 and 30X can also be supplied in 129 and 140-inch wheel base.

Model 40 can also be supplied in 146 and 160-inch wheel base.

*Model 34X can be supplied in 145, 160 and 176-inch wheel base.

Model 28X can be supplied in 145, 160 and 176-inch wheel base.

Model 29XS can be supplied in 160 and 176-inch wheel base.

*Model 26XW can be supplied in 148, 176 and 190-inch wheel base.

*Models 18X, 32X and 33X can be supplied in 148, 190 and 220-inch wheel base.

*Models 19X, 31X and 27X can be supplied in 148, 172, 190, 220 and 235-inch wheel base.

As optional equipment models 18X, 19X, 33X, 31X and 27X can be supplied with Timken dual reduction rear axle.

STUDEBAKER LINE

*Capacity model GN-N is 4,000 pounds for body, cab, driver and payload.

Maximum gross load, chassis, body and payload for Models 77 and 88 is 12,500 lbs. and for Model 99 is 14,000 lbs.

‡Hand brake same as foot brake, standard. Hand brake on drive shaft, special equipment.

TEXAS GAS TAX FEES DECLINE IN AUGUST

Austin, Tex., Oct. 9.—Gasoline tax collections during August totaled approximately $2,850,000, according to George H. Shappard, state comptroller. This is a slight decrease from July. The majority of the amount collected was paid by five large oil companies.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

RETAIL CAR DEALERS DO BEST IN THE EAST

(Continued from Page 1)

tween the two coast territories suffered the most in sales, with the Rocky Mountain states showing a decline of 36 per cent., the largest of any section of the country. The Great Lakes states, largely industrial, reported a 35 per cent. decline in sales, while in the agricultural states of the Middle West there was a decline of 33 per cent. In the thirteen Southern states the decline in new car sales amounted to 28 per cent.

Following are the new car registrations in the first eight months in seven geographical divisions, with comparisons with last year:

	1930	1929	% Decline
New England..	161,548	207,702	24
East	513,221	642,000	20
South	430,573	605,061	28
Great Lakes...	555,296	858,386	35
Middle West..	197,626	296,699	33
Rocky Mts.	67,542	105,696	36
Pacific Coast..	185,637	250,198	25
Totals	2,111,443	2,965,742	28

Following are the new passenger car retail sales by seven geographical divisions for the first eight months of this year, as compared with the corresponding period of 1929:

NEW ENGLAND

	1930	1929
Massachusetts .	85,390	108,196
Connecticut ...	32,797	43,282
Rhode Island..	12,642	17,000
Maine	14,833	18,986
New Hampshire	8,648	10,440
Vermont	7,238	9,798
Totals	161,548	207,702—24%

EAST

New York	217,262	267,341
Pennsylvania ..	158,632	205,435
New Jersey	79,885	96,151
Maryland	28,917	35,020
West Virginia..	22,727	31,217
Delaware	5,798	6,836
Totals	513,221	642,000—20%

SOUTH

Texas	93,301	148,553
Missouri	72,389	91,282
Virginia	34,699	41,982
Florida	23,317	28,278
Tennessee	30,124	42,051
North Carolina.	24,685	46,026
Georgia	22,225	27,278
Kentucky	28,482	40,174
Louisiana	19,845	28,708
Alabama	18,309	23,864
Mississippi	17,380	21,615
Arkansas	16,604	25,195
South Carolina.	13,903	22,548
Dist. of Col.	15,310	17,507
Totals	430,573	605,061—28%

GREAT LAKES

Illinois	137,888	190,120
Ohio	127,002	208,268
Michigan	114,776	207,367
Indiana	59,373	97,060
Wisconsin	60,145	83,138
Minnesota	56,112	72,433
Totals	555,296	858,386—35%

MIDDLE WEST

Iowa	60,219	80,642
Oklahoma	43,418	67,345
Nebraska	32,376	49,645
Kansas	35,823	57,217
South Dakota..	15,193	23,314
North Dakota..	10,597	18,536
Totals	197,626	296,699—33%

ROCKY MOUNTAINS

Colorado	21,844	31,830
Montana	10,082	18,778
Arizona	7,174	13,032
Idaho	8,266	11,107
Utah	8,214	13,011
New Mexico ...	5,431	7,716
Wyoming	3,829	6,713
Nevada	2,702	3,509
Totals	67,542	105,696—36%

PACIFIC COAST

California	137,327	185,624
Washington ...	30,147	40,230
Oregon	18,163	24,344
Totals	185,637	250,198—25%

OIL INDUSTRY TURNS TO A. S. M. E. FOR AID IN SOLVING PROBLEMS

Tulsa, Okla., Oct. 9.—More and more is the oil industry coming to depend on the trained technician, not only in the production end but in all phases of the industry, including refining and transportation, W. G. Skelly, president of the International Petroleum Exposition and Congress in session here, declared to the Petroleum Division of the American Society of Mechanical Engineers at its opening session this week.

The time is past when costly experimentation is used in place of knowledge of facts, Skelly said. Research has come to play a most important part in all branches.

Charles Gorton, vice-president of the society, in responding to the welcome by Skelly and William B. Way, general exposition manager, said the American Society of Mechanical Engineers is wiling to do all it can to mechanize the oil industry.

"The work of the last six months has brought forth much more fruit from the efforts of the mid-continent section of the society," said Gorton.

"The division will be ably represented on the National Council of the Society by Thomas R. Weymouth, chairman of the board of directors of the Oklahoma Natural Gas Association."

Approximately one hundred and fifty members registered for the first day's sessions. Many others were expected to attend the sessions yesterday and today.

William G. Heltzel, chairman of the Petroleum Division, and chief engineer for the Stanolind Pipeline Company of Tulsa, who presided at the opening session, said:

"The engineer's professional duties and obligations are not confined to the perfection of machines, elimination of waste and development of more efficient processes."

Testing methods and technique applicable to field conditions were described by E. H. Hillman, lubrication department, technical division of the Standard Oil Company of Indiana, in his paper on "Service Tests on Carbon Formation in Diesel Engines."

Methods of lengthening the life of cylinder liners of Diesel engines was discussed in "Lubrication of Power Cylinders of Diesel Engines and Causes of Cylinder Wear," by J. M. McGregor and J. B. Harshman of the Stanolind Pipe Line Company of Tulsa. The authors conducted a series of research projects extending over four years on the subject.

Reciprocating oil pipe line pumps will operate at approximately two-thirds the cost of a centrifugal pump, stated W. H. Stueve, Oklahoma Gas and Electric Company, Muskogee.

A series of tests to effect the most economic design for oil pipe lines carried on by himself were discussed by Oscar Wolf, Houston, Tex. Other papers on economics of oil pipe lines also were presented.

Dr. H. J. Masson, secretary of the Petroleum Division and faculty member of New York University, was assistant chairman at the opening session.

How the oil industry has quickened step to keep pace with the requirements of the automobile makers for improved motor fuels and how manufacturers have been able to put more snap and pep into their products by superior gasoline were described by Lyman C. Huff, chief engineer of the Universal Oil Products Company of Chicago.

He termed the cracking process, which has enabled refiners to produce gasoline of superior "anti-knock" qualities, as the "greatest step taken by the oil refining industry in the last fifteen years."

Spurred on by an increasing demand for high quality motor fuels, further research may lead to development of additional improvements that will provide a gasoline giving a still better performance and more nearly fitting the needs of present day high compression engines, Huff told the engineering group.

Stressing the importance of the development of cracking, he said the process was almost wholly responsible for increasing the average total yield of gasoline from 26.1 per cent. of the amount of crude produced in 1919 to 46.1 per cent. of the crude oil production in the first four months of 1930.

Huff asserted the forward strides of the automobile industry could not have been made without the increased gasoline production that resulted from development of the cracking process.

"Cracking had its birth as a commercial factor in petroleum refining at the same time that the infant automobile industry began to give certain promise of going to vigorous maturity," he said. "So it may he said that the cracking art and the automobile industry grew up together."

Calling attention to the need for an improved type of fuel which was created by advances in automotive engineering and development of the high compression motor, Huff told how the cracking process had aided in solving the problem placed upon refiners.

"Automobile engineers, constantly seeking greater efficiency and greater performance of their engines, found that increasing the compression of the engines was a means of getting greater power, snap and all-around performance.

"In order to operate such high compression engines, a fuel was necessary which possessed different characteristics from those of the motor fuels previously used—a fuel that did not 'knock' or 'ping' in the engine. Such fuel came to be known as 'anti-knock' gasoline.

"Petroleum technologists found that the cracking process could produce gasoline of much higher anti-knock value than the straight run product, and this fact has further greatly promoted the used of the cracking process by the refineries."

DELEGATES TO HIGHWAY CONGRESS VISIT ANNUAL DISPLAY OF EQUIPMENT

Special from A. D. N. Washington Bureau

Washington, Oct. 9.—With most of the important business of the Sixth International Road Congress completed, hundreds of delegates, many from the principal countries of the world, today visited the annual exposition and demonstration of road construction and maintenance equipment and materials of the American Road Builders' Association at the Washington Auditorium.

W. A. Van Duzer, president of the association, and Charles M. Upham, engineer-director, welcomed the guests.

The entire ground floor is crowded with displays of various materials used in road construction and the machinery and equipment of road builders. Overflow exhibits are ranged all about the spacious building and each side of the street outdoors.

Featured among the exhibits is that of the United States Bureau of Public Roads. Here is shown a comprehensive display of test tubes, materials and formulas of the results of the research of the Federal government on sub-grades and pavement bases.

NEW NASH MODELS PRICED $795 TO $2,025

New York, Oct. 9.—Through a typographical error the price range of the new Nash line for 1931 announced as $795 to $2,095 should have read $795 to $2,025.

CANADIAN MOTOR TRADE OFF SHARPLY

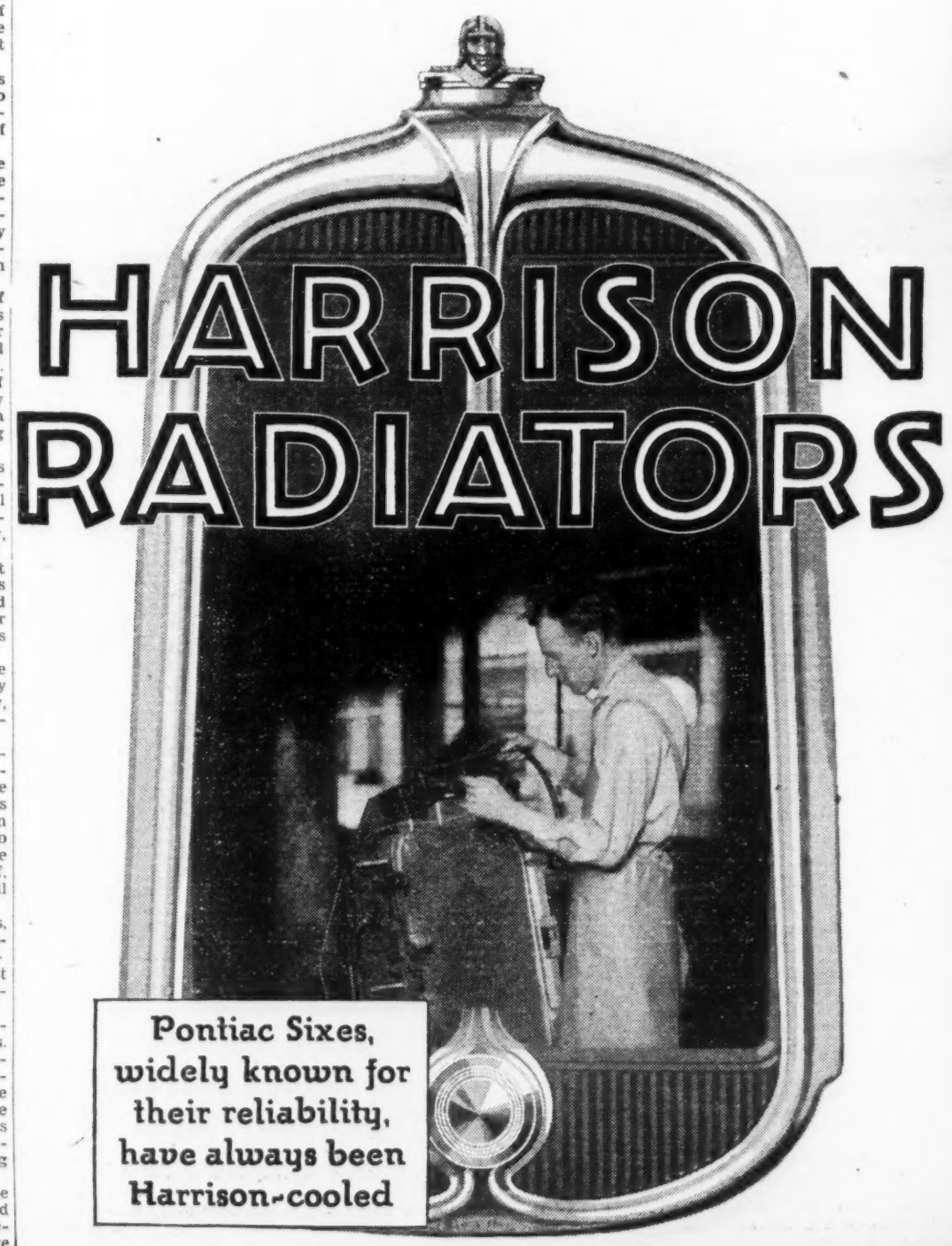
(Continued from Page 1)

of 67,150 for the second quarter of 1929, according to Mr. Sargeant's figures.

"Automobile manufacturers are being especially watchful of credit risks," Mr. Sargeant said, "with the result that they have lost some sales, but are in a better financial condition than three months ago.

The four primary factors which have contributed materially to the unsatisfactory condition of the automotive industry in Canada during the second quarter were: (1) general business depression; (2) the securities market collapse of last fall; (3) low wheat prices, and (4) overproduction during 1929.

Road construction in Canada was maintained at a relatively high level during the second quarter. It is estimated that a total of of $87,000,000 is to be spent this year on the construction and maintenance of roads throughout the Dominion.

Sales of new passenger cars in eastern Canada numbered some 41,480 units, which were 287 per cent. greater than the preceding three month period and 29 per cent. less than the second quarter a year ago.

Generally speaking, the sales of higher priced cars in Quebec have suffered about twice as much as the sales of cars under $1,000. A dealer in Montreal handling a low price car claims to have sold 200 more units this year than during the first six months of 1929.